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## THE HUMAN DEVELOPMENT INDEX IN CANADA: ESTIMATES FOR THE CANADIAN PROVINCES AND TERRITORIES, 2000-2011

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# **The Human Development Index in Canada: Estimates for the Canadian Provinces and Territories, 2000-2011**

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## **Abstract**

This report develops internationally comparable estimates of the Human Development Index (HDI) for the Canadian provinces and territories over the 2000-2011 period. The HDI is a composite index composed of three dimensions (life expectancy, education and income) measured by four indicators (life expectancy at birth, average years of education, expected years of schooling and GNI per capita). This report first tries to replicate the Canadian data found in the 2011 Human Development Report (HDR). Then, estimates for the provinces and territories are developed by following the same methodology and using the same Canadian data sources. These estimates are made internationally comparable by taking the proportion that each province or territory's estimate represents of the comparable estimate for Canada and applying this ratio to the official estimate given for Canada in the 2011 HDR. This allows the provinces and territories to be ranked in the 2011 HDR international rankings for all four component variables as well as the overall HDI. The highest HDI score in 2011 among the provinces and territories belongs to Alberta, which would be third in the international rankings, while the lowest ranking region is Nunavut, which would be in 38<sup>th</sup> place. Thus, this report highlights the diverse human development experiences that are concealed by Canada's overall HDI.

# The Human Development Index in Canada: Estimates for the Canadian Provinces and Territories, 2000-2011

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# The Human Development Index in Canada: Estimates for the Canadian Provinces and Territories, 2000-2011

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## Executive Summary

The Human Development Index (HDI) is an internationally recognized measure of socio-economic well-being. It is a composite index composed of three dimensions: life expectancy, education and income. In the 2011 Human Development Report (HDR) produced by the United Nations Development Program, life expectancy is measured by life expectancy at birth, education is measured by average educational attainment and expected years of schooling, and income is measured by Gross National Income (GNI) per capita. Although the HDI is by no means a comprehensive measure of human development, it is a substantial improvement over the standard income-based metrics of this concept.

Canada falls into an impressive sixth place in the international HDI rankings of the 2011 HDR released in the fall of 2011. However, this ranking hides significant regional variations among the Canadian provinces and territories. This report aims to calculate an internationally comparable HDI for all of the Canadian provinces and territories in order to evaluate their respective levels of human development relative not only to each other and the Canadian average, but also to the rest of the world.

To estimate the provincial and territorial HDIs, the Centre for the Study of Living Standards (CSLS) employed data sources that allow a breakdown by province and territory and used the methodology of the 2011 HDR to replicate Canada's 2011 HDR estimates. In terms of the HDI, Alberta ranked first among the provinces and territories in 2011 and Nunavut last. For both life expectancy and average educational attainment, British Columbia was the top region and Nunavut again ranked last. For expected years of schooling, Quebec ranked at the top and Nunavut came in last, while for GNI per capita, Northwest Territories was in first place and Prince Edward Island was in last.

Unfortunately, CSLS could not precisely replicate Canada's 2011 HDR official estimates using the Canadian data sources that also have data by province and territory. Therefore, the CSLS estimates for Canada and each province and territory or jurisdiction for each dimension of the HDI are used to calculate the proportion of the Canadian estimate that each region's estimate represents. These proportions are then applied to the official 2011 HDR estimates for Canada in order to obtain a value for each province and territory that represents the same proportion of the 2011 HDR estimates as is shown between the CSLS estimates for that province or territory and Canada. This generates provincial and territorial HDI estimates that are internationally comparable in the context of the 2011 HDR.

Of the 187 countries in the 2011 HDR rankings for the overall HDI, Canada's provinces and territories ranked between third and 38<sup>th</sup> place. Canada's regions ranked between sixth and 100<sup>th</sup> in life expectancy, between fifth and 30<sup>th</sup> in average educational attainment, between 15<sup>th</sup>

and 89<sup>th</sup> in expected years of schooling and between third and 32<sup>nd</sup> in GNI per capita. Therefore, although most Canadian provinces and territories achieve impressive ranks in the international context, it is clear that Canada's overall HDI masks substantial variation among the different regions.

All provinces and territories experienced improvements in the HDI growth between 2000 and 2011, with the HDI in most jurisdictions advancing at 0.3 per cent per year. The two jurisdictions with the greatest improvement were Newfoundland and Labrador and Nunavut, which experienced HDI growth of 0.48 per cent per year and 0.54 per cent per year respectively. This fast growth boosted Newfoundland and Labrador in the rankings from eleventh to seventh place. On the other hand, despite its fast HDI growth, Nunavut remained the lowest ranked jurisdiction in both 2000 and 2011. There is some evidence of convergence in the HDI as three of the regions with the highest HDI in 2011 (Alberta, Ontario, and British Columbia) had below average growth in the HDI between 2000 and 2011, while the three bottom ranked regions (Nunavut, Prince Edward Island, and New Brunswick) had above average growth in the HDI.

# The Human Development Index in Canada: Estimates for the Canadian Provinces and Territories, 2000-2011<sup>1</sup>

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## Introduction

The Human Development Index (HDI) is an internationally recognized measure of socio-economic well-being. It was first published by the United Nations Development Program (UNDP) in 1990 and estimates of the HDI have been released on an annual basis ever since.<sup>2</sup> The HDI has become a popular tool, particularly because its simple structure facilitates international comparisons of human development and well-being. In fact, the 2011 version of the HDI has been calculated for 187 of the 193 member countries of the United Nations.

Canada falls into an impressive sixth place in the international HDI rankings of the 2011 Human Development Report (HDR). However, this ranking glosses over regional variations among the Canadian provinces and territories. This report aims to calculate an internationally comparable HDI for the provinces and territories in order to compare their respective levels of human development with not only each other and the Canadian average, but also with the rest of the world.

This report is divided into three major sections. In the first section, the Human Development Index is discussed. Next, the Centre for the Study of Living Standards (CSLS) tries to replicate the estimates for Canada in the three dimensions of the HDI (life expectancy, education and income) as published in the 2011 HDR. The difficulties in precisely matching these numbers are also discussed. Finally, the provincial and territorial HDIs are calculated for the 2000 to 2011 period and the ranking results are discussed. Estimates for the pre-2000 period for all variables are provided in the Appendix tables.

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<sup>1</sup> The authors would like to thank Monique Charron from the Government of Nunavut for initiating this project and asking the Centre for the Study of Living Standards (CSLS) to undertake this study. The CSLS thanks the Government of Nunavut for financial support. Earlier versions of this report were presented to a meeting of Government of Nunavut Deputy Ministers in Iqualuit, Nunavut on March 14, 2011 and to the annual meeting of the Canadian Association of Economics at the University of Ottawa, June 3-5, 2011. The authors would like to thank officials in the Government of Nunavut and Milorad Kovacevic from the UNDP for comments. The views expressed in the report are those of the CSLS. Comments on the report are welcome and should be sent to Andrew Sharpe at andrew.sharpe@csls.ca.

<sup>2</sup> All of the twenty annual HDR reports, containing estimates for HDI in each respective year, are available on the UNDP website. The 21<sup>st</sup> report, the 2011 HDR, is available at <http://hdr.undp.org/en/reports/global/hdr2011/>.

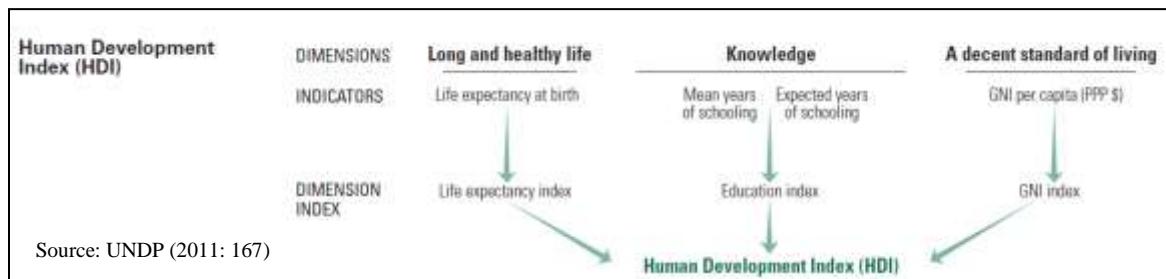
## I. The Human Development Index

In the past two decades, the HDI has become a common tool for evaluating the level of human development in a country or a region. Its popularity has arisen for two main reasons. First, it captures more elements that describe quality of life, namely education and life expectancy, than do standard income measures. In this sense, it presents a broader measure of human development than GDP per capita or other common measures of income and consumption. Second, it is relatively easy to calculate and has minimal data requirements, allowing it to be calculated for many developing countries. Thus, it is particularly useful for international comparisons of human development and well-being.

However, this measure of human development is not without its weaknesses. Its primary failing is that it only considers three elements of economic well-being: education, life expectancy and income. It does not take into account other critical elements of well-being such as income inequality, gender inequality, morbidity, political freedom, civil liberties, corruption, pollution, or economic security. To address this shortcoming, the 2011 HDR supplements its HDI estimates with additional information on human development, including estimates of an Inequality-adjusted HDI, a Gender Inequality Index, a Multidimensional Poverty Index and data on environmental sustainability, human development effects of environmental threats, and perceptions about well-being and the environment, in addition to more detailed health and education statistics. Indeed, the authors of the HDR reports emphasize that the HDI alone is not a complete description of human development.

Still, the HDI is a very useful tool, particularly because it is easily understood and widely used owing to its simple structure. As noted, the HDI is a composite index composed of three dimensions: life expectancy, education and income. In the 2011 HDR, life expectancy is measured by life expectancy at birth, education is measured by average educational attainment in years and expected years of schooling, and income is measured by Gross National Income (GNI) per capita. Exhibit 1, taken from the 2011 HDR, illustrates the fundamental structure of the HDI.

**Exhibit 1: Structure of the Human Development Index**



Before estimating the provincial and territorial HDIs, it is important to understand not only how the HDI is constructed, but also how the 2011 HDR, which contains the 2011 HDI estimates, differs from reports published before 2010. This is particularly important because the 2010 report has instituted major changes in how the HDI is calculated in response to the

concerns of researchers in economic development.<sup>3</sup> Thus, HDI estimates presented in the 2010 and 2011 HDR are not comparable to those published in previous HDR reports but represent an improvement in methodology in many respects.

The HDI estimates in the 2011 HDR are calculated in the following manner. First, the life expectancy, average educational attainment, expected years of schooling and GNI per capita data for each country are scaled into indices using the following equation, which is referred to as equation (1):

$$Index = \frac{actual\ value - minimum\ value}{maximum\ value - minimum\ value} \quad (1)$$

The maximum and minimum values for each dimension are taken directly from the 2011 HDR, and follow a simple rationale. The minimum values are based on the concept of subsistence, that is, they are set at the lowest value needed in that indicator for a society to function, or, in the case of income, the lowest value in recorded history. The maximum values are set at the highest observed value for each indicator in the HDR's time series from 1980-2011.<sup>4</sup>

The life expectancy index calculation is a straightforward application of equation (1), while the income index requires taking the natural logarithm (ln) of each income estimate before applying it in equation (1). The education index is slightly more complicated to calculate, as it involves creating two sub-indices and then combining them to create the dimension index. The two education sub-indices are constructed for mean years of schooling and expected years of schooling, respectively, using equation (1). The education index is then created by taking the geometric mean of the two sub-indices and rescaling the number that results by using the maximum and minimum values listed for this purpose in the technical notes of the 2011 HDR.

The HDI itself is calculated as the geometric mean<sup>5</sup> of the three indices already discussed, i.e.:

$$HDI = I_{life}^{1/3} \times I_{education}^{1/3} \times I_{income}^{1/3}$$

This results in a number between 0 and 1, where 1 represents the highest possible human development score. A country achieves a score of 1 only if it matches the highest observed

<sup>3</sup> For critiques of earlier versions of the HDI, see Srinivasan (1994), Sagar and Najam (1998) and McGillivray (1991).

<sup>4</sup> Life Expectancy: minimum=20.0 years based on long-run historical evidence from Maddison (2010) and Riley (2005), maximum=83.4 years (Japan, 2011).

Education: minimum=0 years for both average educational attainment and expected years of schooling since survival is possible without education, maximum=13.1 years (Czech Republic, 2005) for average educational attainment and maximum=18.0 years (capped at) for expected years of schooling; for generating the composite education index, maximum=0.978 (New Zealand, 2010) and minimum=0.

Income (PPP adjusted 2005 US\$): maximum= \$107,721 (Qatar, 2011), minimum= \$100.

For more information see *Technical notes* in the 2011 HDR

<sup>5</sup> A geometric mean is calculated by multiplying  $n$  numbers and then taking the  $n^{\text{th}}$  root of that product. The HDI used to be calculated with an arithmetic mean (or average), which is the sum of  $n$  numbers divided by  $n$ . This was changed because geometric means allow less substitutability between measures or dimension indices, so poor performances in one dimension are not linearly compensated for by better performances in other dimensions. For more information, see <http://hdr.undp.org/en/statistics/hdi/>.

outcomes to date in all categories. The highest HDI score for 2011 belongs to Norway (0.943), and the lowest belongs to the Democratic Republic of the Congo (0.286) (Appendix Table 17).

This methodology of the 2010 and 2011 HDR departs from previous HDR reports in three main ways.

- First, the education index is constructed using average educational attainment and expected years of schooling, instead of literacy and the gross enrolment rate (which combines primary, secondary and tertiary enrolment rates), to offer a more complete picture of education.
- Second, income per capita is measured by GNI per capita instead of Gross Domestic Product (GDP) per capita. This switch occurred because GDP measures the amount produced in a country without capturing where the income from this production goes. In contrast, GNI reflects the income of the residents of a country regardless of where the income is generated, and is therefore a better measure of domestic purchasing power than GDP.
- Finally, the geometric mean has replaced the arithmetic mean for calculating the overall index. This reduces the substitutability of improvements across measures, so a country cannot equally trade off performing poorly in one dimension by performing even better in another. In other words, a country cannot receive a very high human development score without impressive scores in all dimensions.

One criticism that remains of the HDI is the arbitrarily determined equal weights applied to each dimension. Lind (2010) instead proposes a Calibrated Human Development Index (CDI) that employs revealed preferences to justify the weights applied to each dimension, and in doing so better reflects the relative roles of education and consumption in determining quality of life. However, the CDI is tailored to accurately rank highly developed countries, and in that way is not as useful for international comparisons as the original HDI.

## II. Replicating the 2011 HDR's Estimates for Canada

In order to develop an internationally comparable HDI for the Canadian provinces and territories, the CSLS sought to employ methodologies and data sources that were as consistent as possible with those used in the 2011 HDR. Thus, CSLS found Canadian data sources that have both national, provincial and territorial estimates for each indicator, and used these data first to replicate the official HDI results for Canada and then to develop estimates for the provinces and territories using the same methodology. This section will outline the process of replicating the 2011 HDR official estimates for life expectancy, education (which includes both average educational attainment and expected years of schooling) and income for Canada. The difficulties in precisely matching the 2011 HDR results are also discussed.

### A. Life Expectancy

In the 2011 HDR, Canada's life expectancy at birth was estimated to be 81.0 years for 2011, which ranked at 13<sup>th</sup> place internationally. The source given for the 2011 HDR's estimate is the *World Population Prospects: The 2010 Revision* (United Nations Department of Economic and Social Affairs (UNDESA), 2011), which states that life expectancy at birth is "based on official estimates of life expectancy available through 2009", where "the age pattern of mortality is based on life tables through 2007 from the Human Mortality Database".

**Table 1: Life Expectancy at Birth, Canada, 1980-2011**

Year	2011 HDR	Statistics Canada
1980	75.0	75.2
1990	77.3	77.6
2000	79.1	79.4
2001	-	79.6
2002	-	79.7
2003	-	79.9
2004	-	80.2
2005	80.1	80.4
2006	80.3	80.8
2007	80.5	80.9
2008	80.6	81.0
2009	80.8	81.2
2010	80.9	81.4
2011	<b>81.0</b>	81.6

**Notes:** The 2011 HDR data taken from the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/69206.html>); bolded value used in 2011 HDR calculation of HDI.

**Sources:** Statistics Canada data from CANSIM Table 102-0025 for 1980 and 1990, Table 102-0511 for 2000-2006; Table 102-0512 for 2007-2008;<sup>6</sup> the italicized values (2009-2011) are estimated by the CSLS by applying the compound annual growth rate for 1991-2008 (0.24 per cent) to each year.

<sup>6</sup> Statistics Canada modified their life expectancy at birth methodology to include three years of data. An annual time series can be derived from this data.

Statistics Canada's official estimates of Canadian life expectancy are available for 1979-2008, and they are very similar to the estimates in the 2011 HDR, as shown in Table 1. They may differ due to rounding, the possibility of minor data revisions by Statistics Canada since the data were extracted by UNDESA, and the forecasting methods employed by UNDESA after 2009. Nevertheless, both sets of estimates show that Canada had a life expectancy of around 81 years in 2011 (Table 1).<sup>7</sup>

## B. Education

As mentioned earlier, the 2010 and 2011 HDR differs from all previous reports in that the education indicators employed to generate the education index are average and expected years of schooling, instead of literacy and gross enrolment rates. These new measures of education are used because they offer a more complete picture of education. However, the estimates of average years of schooling, calculated using the Barro and Lee (2010) methodology, are hard to replicate. In addition, in the 2011 HDR, the most recent year for which expected years of schooling was estimated for Canada using current data was 2002. Thus, although these new measures of education may represent an improvement in theory, employing them makes the HDI's results difficult to replicate and the official estimates in the 2011 HDR may not accurately reflect the situation of Canada's skill base in 2011.

### i. Average Educational Attainment

Overall, Canada performs well in the category of average educational attainment relative to many other nations. According to the 2011 HDR, Canadians aged 25 and over have obtained, on average, 12.1 years of schooling, or sixth place in the international rankings for this measure. This estimate of average years of schooling updates the Barro and Lee (2010) estimates using UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics data on educational attainment. The HDR estimates for 1980, 1990, and 2000 to 2011 are presented in Table 2.<sup>8</sup>

Although Barro and Lee (2010) do not describe how average educational attainment is calculated for Canada specifically, their general methodology is straightforward. They first multiply the duration of each schooling level in years by the proportion of individuals in different age brackets that have achieved that level as their highest level of schooling, where "level of schooling" refers to primary, secondary and tertiary (or post-secondary) schooling levels. The age brackets used for the average education of those 25 and older are defined by 5 year intervals (i.e. 25-29, 30-34) until age 74, with the final age category being 75 and older. Summing these results across schooling levels for each age group yields the average schooling level for each age group. The average educational attainment for the entire population is then calculated by adding together these age group average educational attainments once they have been weighted by the share of that age group in the total population aged 25 and older.

<sup>7</sup> CSLS's projected estimate of 81.6 years for 2011, which is estimated using historical growth rates, is 0.6 years above the 2011 HDR's estimate (81.0 years). Inserting CSLS's estimate into the 2011 HDR international life expectancy rankings would move Canada into eighth place, instead of its actual ranking of 13<sup>th</sup> place.

<sup>8</sup> Barro and Lee revised their estimates in September 2011. However, this new dataset was not used in the 2011 HDR so this report will not focus on the updated data. The revised dataset estimates that average educational attainment in Canada was 12.3 years in both 2005 and 2010.

The CSLS has replicated that paper's methodology using raw data from the 2001 and 2006 Census. It should be noted that these two census years are not strictly comparable due to slight changes in the education portion of the census survey.

**Table 2: Estimated Average Educational Attainment, Canada, Persons aged 25 and over**

Year	2011 HDR	CSLS Estimates using Barro and Lee (2010) Methodology and Statistics Canada data	
		Census data	LFS data
1980	9.5	-	-
1990	10.3	-	11.3
2000	11.1	-	11.9
2001	-	11.7	12.0
2002	-	-	12.1
2003	-	-	12.1
2004	-	-	12.2
2005	11.3	-	12.2
2006	11.5	12.3	12.3
2007	11.6	-	12.3
2008	11.8	-	12.4
2009	12.0	-	12.4
2010	12.1	-	12.5
2011	<b>12.1</b>	-	12.5

**Notes:** The census data in 2001 and 2006 are not directly comparable due to survey differences across years.

Bolded value used in calculation of 2011 HDI. CSLS allocates 8 years for those with at most primary, 12 years for those with at most secondary and 14 years for those with tertiary schooling.

**Sources:** LFS data from CANSIM Table 282-0004; Census data from 2001 and 2006 Microdata files on Census Data Analyser; HDR estimates can be found on the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/69606.html>).

To develop an estimate of average years of schooling, CSLS aggregates data on all educational attainment categories to create three broad schooling level categories, and allocates individuals into these categories according to the highest level of schooling they have attained, similar to what is done in Barro and Lee (2010). Individuals are considered to have attained a certain level of schooling only if they have a certificate or diploma indicating that they have completed that program. For example, an individual is placed in the secondary school category if they have a high school diploma or certificate but no certificates, diplomas or degrees from any further education, such as a university degree, regardless of whether they attended a post-secondary institution or not. Individuals are placed in the primary schooling category if they do not have a high school certificate or diploma or if they have no formal education.<sup>9</sup>

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<sup>9</sup> In 2011, Labour Force Survey data indicate that 16.6 per cent of Canadians aged 25 and over had not graduated from high school (in the primary schooling category, allocated 8 years of schooling), 25.0 percent had graduated high school or had attended some post-secondary schooling without completion (in the secondary schooling category, allocated 12 years), and 58.4 per cent had earned a post-secondary certificate or diploma or university degree (in the tertiary schooling category, allocated 14 years). The 2006 census data shows similar results, with 20.7 per cent, 23.5 per cent and 55.8 per cent of Canadians in the primary, secondary and tertiary schooling categories, respectively.

However, an earlier publication by the same authors (Barro and Lee, 2001), which performs almost identical calculations, does state that duration data vary between countries and are taken from the UNESCO (United Nations Educational, Scientific and Cultural) Organization statistical year book for various years. Examining the data on duration of schooling available from the UNESCO Institute for Statistics (UIS) yields the following duration data for Canada: primary is 6 years, secondary adds another 6 years and post-secondary (tertiary) adds another 2 years.

It is therefore difficult to determine how many years of education should be allocated to those with at most primary schooling (i.e. those who did not complete secondary school). Although primary schooling is listed as lasting 6 years in UNESCO's 1999 Statistical Yearbook, schooling is mandatory in Canada up to at least the age of 16, for a total of 10 years (excluding kindergarten). Thus, 6 years of schooling allocated to those who do not complete high school will grossly underestimate their years of schooling. As recently as the 1970s, however, the school leaving age was still 15 in some provinces, so it is possible that significant numbers of people in the Canadian population today have received no more than 8 years of formal schooling, ignoring the kindergarten years (Oreopoulos, 2006). Indeed, according to the LFS data, 21.1 per cent of those aged 65 and over had eight or fewer years of schooling in 2011. Therefore, the CSLS allocates those with at most the primary level of schooling 8 years of education. Secondary and tertiary education are more straightforward, and the years allocated follow the UIS duration data: those with at most secondary schooling are allocated 12 years, and those with tertiary are assumed to have 14 years of schooling.

The estimates of average years of schooling are presented in Table 2. Clearly, the census-based CSLS estimates are about one year higher than those in the 2011 HDR. To check the robustness of these estimates, Table 2 also lists the average educational attainment calculated using data from the Canadian Labour Force Survey (LFS), available for the 1990-2011 period. Not surprisingly, average years of schooling from the LFS data are identical to the census-based estimates in 2006, and both sets of estimates are 0.8 years higher than the estimate from the 2006 HDR. The gap between the HRD and LFS estimate of average educational attainment fell to 0.4 years in 2011.<sup>10</sup>

As average educational attainment is sensitive to the duration assumptions for each schooling level, it is worth checking the sensitivity of the results to alternate assumptions. One important test is to assign those with at most primary education 6 years of schooling, in line with UNESCO's definition, instead of the more realistic 8 years assumed by CSLS. When those with at most primary education are assigned 6 years of schooling, the data from the census gives estimates of 11.1 years in 2001 and 11.9 years in 2006 for those 25 and older. The LFS data similarly yield estimates of 11.4 years in 2000, 11.8 years in 2005 and 12.2 years in 2011. These estimates are much closer to the results of Barro and Lee (2010) than are the first set of CSLS estimates: 12.2 years in 2011 from LFS exceeds Barro and Lee's estimate (12.1 years) by only 0.1 years. Since the assumption of 6 years of primary education is not realistic given the Canadian context, CSLS will employ the original assumption of 8 years.

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<sup>10</sup> Indeed, if the 2011 CSLS estimate using LFS data for Canada in 2011 (12.5 years) is inserted into the 2011 HDR international rankings for average years of schooling, Canada would be in third place instead of ranking sixth.

The validity of CSLS's estimates is confirmed by Cohen and Soto (2007). This paper estimates average years of schooling by employing data from surveys published by UNESCO and from an OECD database on educational attainment. Despite using the same UNESCO data source as Barro and Lee for their schooling duration assumptions, their results for Canada exceed those of both the CSLS and Barro and Lee for all available data years (11.7 years in 1990, 12.6 years in 2000, and 13.2 years in 2010).<sup>11</sup> Along with the higher estimates in the revised Barro and Lee dataset, this raises the concern that the 2011 HDR may be underestimating Canada's average years of schooling relative to the rest of the world, although this issue is not directly relevant to this report. More importantly, although the CSLS results are not identical to Barro and Lee's results, it is clear that the CSLS estimates are not unreasonable or inconsistent with the literature.

## ii. Expected Years of Schooling

UNESCO Institute for Statistics (UIS) (2009) defines school-life expectancy, or expected years of schooling, as the “total number of years of schooling which a child of a certain age can expect to receive in the future, assuming that the probability of his or her being enrolled in school at any particular age is equal to the current enrolment ratio for that age.” Thus, school-life expectancy is simply the sum of the enrolment rates of each age in a population, where the enrolment rate of a certain age is defined as the number of people of that age enrolled in formal schooling divided by the total population of that same age.

Canada's expected years of schooling for 2011 in the 2011 HDR is 16.0 years, which places Canada in 22<sup>nd</sup> place in the 2011 HDR rankings for this indicator. The 2011 HDR cites UIS as its source for this measure, but UIS's national data source for Canada is not given on their website. It is simply stated that “school register, school survey or census” is used for data on enrolment rates by age. The *UIS Educational Indicators: Technical Guidelines* (UIS, 2009) does, however, describe UIS's methodology for calculating school-life expectancy in detail, and this methodology will be followed here.

Unfortunately, the enrolment data for each age year are not publicly available in Canada. Thus two sets of estimates of expected years of schooling will be calculated using different data sources. The first will use administrative data on enrolment from Statistics Canada, and the second will employ school attendance estimates from the Labour Force Survey (LFS) for the population aged 15-29.

For the first set of estimates of expected years of schooling, administrative data on enrolment for 1996-2009 are taken from various versions of *Summary Public School Indicators for Canada, the Provinces and Territories*, a Statistics Canada publication. It should be noted that kindergarten students are included in this enrolment data, and cannot be separated out. Thus, this measure of expected years of schooling includes kindergarten while all other education measures (including expected years of schooling using LFS data) calculated in this paper do not. College and university enrolment data are taken from Statistics Canada's CANSIM database. The enrolment rate data can be seen in the Appendix 1.

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<sup>11</sup> Data from Cohen and Soto (2007) can be found at <http://soto.iae-csic.org/Data.htm>.

The CSLS calculates expected years of schooling by dividing the enrolment numbers for certain levels of education (primary and secondary, college, and university) by the total population of the age group most likely to be in that level of schooling (primary and secondary: 5-17 years old (including one year of kindergarten) and university and college: 18-22 years old) to obtain the enrolment rate. It is assumed that enrolment below age 5 and above age 22 is zero. For Canada in 2009, the most recent year with enrolment rates for all schooling levels, primary and secondary school enrolment was 99.9 per cent, college enrolment was 30.3 per cent, and university enrolment was 51.9 per cent.

These enrolment rates are then multiplied by the duration of each level (primary and secondary: 13 years (including one year of kindergarten), college: 2 years, university: 4 years) to obtain expected years of schooling. This method is by no means perfect, as many adults over age 22 enroll in secondary school or register in college or university programs. However, due to data limitations, this is the best approximation available.<sup>12</sup>

It should be noted that the primary and secondary school enrolment data are only for publicly funded schools (including adult high schools), which account for approximately 93% of Canadian students (Brockington, 2009). The exclusion of private school students results in lower enrolment rates in the primary and secondary school years and biases the estimates for expected years of schooling downwards.

The omission of private school students is clearly an important one, for Table 3 shows that the CSLS calculations using this administrative data are notably lower than UNESCO's estimates, particularly in the two years for which UNESCO and these CSLS estimates are available: 2000 and 2002. In 2000, CSLS estimated that the expected years of schooling in Canada would be 15.2 years, compared to UNESCO's school-life expectancy of 15.9 years; similarly, in 2002, CSLS found expected years of schooling to be 15.2 years, while UNESCO estimated 16.0 years. Thus, these administrative data are probably not the best option for estimating expected years of schooling.

The second set of estimates of expected years of schooling employs LFS data. The LFS captures data on whether an individual is attending school (either full-time or part-time) during the regular school year (September to June) and organizes these data by age instead of level of education. Since LFS data on student status are only available for those aged 15-29 and the current school-leaving age is at least 16 in all Canadian provinces and territories, the assumption is made that 100 per cent of individuals between the ages of 6 and 14 attend school and zero per cent are enrolled below the age of 6. Enrolment over age 29 is also assumed to be zero due to lack of data beyond this age.

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<sup>12</sup> For example, for Canada in 2006, expected years of schooling using administrative data is calculated as follows:  $(0.990 \times 13) + (0.266 \times 2) + (0.488 \times 4) = 15.35$ , which is rounded to 15.4 years.

**Table 3: Expected Years of Schooling, Canada, 1980-2011**

Year	2011 HDR	Administrative Data	LFS data
1980	13.9	-	-
1990	16.7	-	14.8
2000	15.9	15.2	15.6
2001	-	15.2	15.7
2002	16.0	15.2	15.7
2003	-	15.2	15.7
2004	-	15.3	15.8
2005	<b>16.0</b>	15.2	15.9
2006	<b>16.0</b>	15.2	15.8
2007	<b>16.0</b>	15.3	15.8
2008	<b>16.0</b>	15.4	15.8
2009	<b>16.0</b>	15.7	15.8
2010	<b>16.0</b>	15.7	16.0
2011	<b>16.0</b>	15.7	16.0

**Notes:** For administrative data, 2010-2011 are CSLS estimates assuming no growth after 2009. For 2011 HDR, that report assumes 2005-2011 estimates are equal to the 2002 estimate. Bolded value used in CSLS calculation of 2011 HDI.

**Sources:** Administrative data from Statistics Canada, "Summary Public School Indicators for the Provinces and Territories," catalogue number 81-595-M, nos. 78, 83, 88, and 95; CANSIM Tables 477-0015, 477-0013, 051-0001; LFS data from CANSIM Table 2820095; UNESCO data from the UNESCO Institute for Statistics Data Centre.

([http://stats UIS.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF\\_Language=eng](http://stats UIS.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng)) and from the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/69706.html>).

Ideally, the number of individuals of each age (i.e. 15, 16, 17 ...) attending school would be used. However, these data are not publicly available from the LFS, which instead has attendance by age brackets. One problem with this is that calculating expected years of schooling using a wide age bracket (i.e. 15-29) could introduce distortions if one age year or group of age years is substantially larger in total population size than the others. Thus, the narrower age brackets available from the LFS are employed, and they are 15-19, 20-24 and 25-29. When the in-school rates for these three age brackets are multiplied by the number of years they represent (5 years each) and summed together, they represent the expected years of schooling remaining for someone aged 15 years of age and over. Adding nine to this number (to represent the 100 per cent enrolment from ages 6 to 14) yields the expected years of schooling.

Table 4 outlines the data LFS data for those aged 15-29. In 2011, it is clear that the large majority (83.7 per cent) of youth aged 15-19 are in school, while the opposite is true for individuals aged 25-29 (just 14.2 per cent are in school). Not surprisingly, the 20-24 age group lies between these two extremes, with 41.9 per cent in school in 2011. These trends have shown a slight upward trend since 2000.

**Table 4: School Attendance by age group, Canada, 2000-2011**

Year	Ages 15-19			Ages 20-24			Ages 25-29		
	Number of Students	Population	% in school	Number of Students	Population	% in school	Number of Students	Population	% in school
2000	1,685.7	2,046.9	82.4	757.2	2,021.2	37.5	247.0	2,023.5	12.2
2001	1,716.0	2,064.2	83.1	788.7	2,057.8	38.3	269.5	2,024.5	13.3
2002	1,716.5	2,074.2	82.8	807.7	2,088.1	38.7	271.9	2,036.0	13.4
2003	1,707.3	2,079.1	82.1	823.9	2,120.2	38.9	279.1	2,048.7	13.6
2004	1,716.3	2,093.8	82.0	856.1	2,152.2	39.8	285.1	2,071.7	13.8
2005	1,753.6	2,123.1	82.6	892.6	2,179.0	41.0	288.8	2,096.5	13.8
2006	1,787.2	2,155.1	82.9	878.4	2,199.6	39.9	292.8	2,130.5	13.7
2007	1,800.8	2,180.0	82.6	888.9	2,218.3	40.1	294.0	2,174.3	13.5
2008	1,802.2	2,196.7	82.0	879.5	2,235.7	39.3	304.4	2,228.5	13.7
2009	1,819.0	2,191.6	83.0	905.8	2,262.2	40.0	313.2	2,285.2	13.7
2010	1,814.8	2,167.1	83.7	956.1	2,293.1	41.7	323.2	2,328.5	13.9
2011	1,786.4	2,133.9	83.7	973.0	2,324.2	41.9	335.0	2,354.1	14.2

**Note:** Number of students and population are given in thousands.

**Source:** CANSIM Table 282-0095.

The estimates of expected years of schooling using LFS data are presented in Table 3.<sup>13</sup> The CSLS estimates based on LFS data are much closer to UNESCO's estimates in 2000 and 2002 than are the CSLS estimates based on administrative data: 15.6 versus UNESCO's 15.9 in 2000, and 15.7 years in 2002 compared to UNESCO's 16.0. In fact, CSLS's 2011 estimate using LFS data is identical to the 2011 HDR's estimate for 2011 (when rounded to one decimal place, 16.0 years).

It is worth mentioning, however, that the most recent estimate available from UNESCO for school-life expectancy is, surprisingly, for 2002. Although all other indicators used in the HDI are projected forward in some way to obtain an estimate for 2011, the 2011 HDR assumes no growth after 2002 for expected years of schooling. The assumed lack of growth in this education measure from 2002 to 2011 may not accurately reflect the evolution of Canada's skill base, especially since some growth is observed in the LFS and administrative data estimates by CSLS. However, CSLS's estimates show that the growth in this indicator has been slow in recent years due to relatively stable enrolment rates in primary and secondary schools and colleges, so the error is probably small.<sup>14</sup>

<sup>13</sup> Expected years of schooling using LFS data is calculated using the data in Table 4. First, the per cent of people in school for each age group in a given year is multiplied by the number of years that age group represents (ie 15-19 is 5 years, 20-24 is 5 years and 25-29 is 5 years). These numbers are summed to obtain the expected year of schooling after age 15. Second, nine years are added to this number to approximate 100 per cent enrolment between ages 6-14 (inclusive), yielding the expected years of schooling for a child born in that year. For Canada in 2011, the calculation is as follows: Step 1:  $(5*0.837) + (5*0.419) + (5*0.142) = 6.99$ . Step 2:  $6.99 + 9 = 15.99$ . Thus, Canada's expected years of schooling result in 2011 is 15.99, rounded to 16.0 years.

<sup>14</sup> From 2000 to 2009, according to administrative data, primary and secondary school enrolment rates decreased 0.2 percentage points. From 2000 to 2009, college enrolment increased 4.2 percentage points. From 2000 to 2009, university enrolment increased 11.1 percentage points.

## C. Income

In the 2011 HDR, Canada's Gross National Income (GNI) per capita for 2011 is given as \$35,166 in purchasing power parity (PPP) adjusted 2005 US dollars, the 16<sup>th</sup> highest of all nations with a HDI ranking. The 2011 HDR uses GNI estimates and population data from the UN Statistical Division National Accounts Main Aggregates Database. While the GNI estimates match those reported by Statistics Canada, the population figures are slightly different. For the years lacking GNI estimates when the 2011 HDR authors extracted data, projections were developed using information from the IMF's World Economic Outlook publications.

National accounts tables from Statistics Canada state that in 2011 Canada's GNI per capita was \$48,966 in current Canadian dollars.<sup>15</sup> This nominal GNI is then deflated by the gross final domestic expenditure implicit price index (2005=100), and adjusted by Canada's PPP in 2005.<sup>16</sup> This PPP adjustment simply translates constant 2005 Canadian dollars into a common unit used in international comparisons (2005 US dollars) so that the cost of a representative basket of goods in Canada will be the same as in the United States, given the exchange rate. Using the PPP makes international comparisons meaningful because it expresses national income in terms of dollars that have the same purchasing power across countries. Canada's GNI estimate for 2011 in 2005 US PPP adjusted dollars is \$36,058. This estimate does differ somewhat from the projection used in the HDI, which is \$35,166 (Table 5).<sup>17</sup>

**Table 5: GNI per capita, PPP adjusted 2005 US dollars, Canada, 1980-2011**

Year	2011 HDR	CSLS			
	PPP adjusted 2005 US\$	Current dollars	Gross final domestic expenditure, implicit price index 2005=100	2005 constant dollars	PPP adjusted 2005 US\$
	A	B	C	D=B/(C/100)	E=D/1.213644
1980	22,446	-	-	-	-
1990	25,980	23,671	77.4	30,601	25,214
2000	31,602	34,170	91.4	37,371	30,792
2005	34,380	41,808	100.0	41,808	34,448
2006	35,303	44,087	102.4	43,062	35,482
2007	35,613	45,856	104.7	43,814	36,101
2008	35,478	47,515	107.0	44,390	36,576
2009	34,086	44,628	108.5	41,144	33,901
2010	34,729	46,779	109.8	42,604	35,104
2011	<b>35,166</b>	48,996	111.9	43,761	36,058

**Sources:** CSLS: CANSIM Tables 3800030, 3800062; PPP=1.213644 Canadian dollars per US dollar from OECD ([http://stats.oecd.org/Index.aspx?datasetcode=SNA\\_TABLE4](http://stats.oecd.org/Index.aspx?datasetcode=SNA_TABLE4)).

2011 HDR: International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/90406.html>), bolded value used in calculation of 2011 HDI.

<sup>15</sup> CANSIM has data for Gross National Product (GNP) on an annual basis in Table 3800030 and GNI on a quarterly basis in Table 3800062. By definition, GNI is equal to GNP when expressed in current dollars. GNI in constant 2005 dollars is obtained by deflating using the gross final domestic expenditure implicit price index. For an overview of the definitions of national income aggregates, see Ross and Murray (2010).

<sup>16</sup> Canada's PPP for GDP in 2005 was 1.214 Canadian dollars per US dollar, or 0.824 US dollars per Canadian dollar (PPP from OECD, [http://stats.oecd.org/Index.aspx?datasetcode=SNA\\_TABLE4](http://stats.oecd.org/Index.aspx?datasetcode=SNA_TABLE4)).

<sup>17</sup> Employing the estimate by CSLS in the 2011 HDR's GNI rankings increases Canada's ranking from 16<sup>th</sup> to 14<sup>th</sup> place.

## D. Overall Human Development Index

Table 6 outlines the results from CSLS's attempt to replicate the 2011 HDI for Canada. The CSLS is able to closely replicate both the life expectancy index and the income index. CSLS estimates the 2011 Canadian life expectancy index to be 0.972 compared to that from 2011 HDR data of 0.962. Similarly, using the 2011 GNI per capita projection from CSLS yields an income index of 0.843, compared to 0.840 using 2011 HDR data. While the largest discrepancy was found in the education index due to the average educational attainment component, here too it was reasonably close: 0.942 compared to 0.926. Altogether, these indices lead to an HDI (0.917) that is slightly higher than the official estimate of the 2011 HDI for Canada (0.908). If estimates for no other countries changes, insertion of the CSLS HDI estimate for 2011 into the rankings would boost Canada from sixth to third place.

**Table 6: CSLS Replication of the Official Human Development Index Estimate for Canada, 2011**

Dimension	2011 HDR	CSLS estimates	
		CSLS	Proportion of HDR estimates (%)
Life Expectancy at Birth (years)	81.0	81.6	100.7
➤ <b>Life Expectancy Index</b>	<b>0.962</b>	<b>0.972</b>	<b>101.0</b>
Average Educational Attainment (years)	12.1	12.5	103.3
Average Educational Attainment Index	0.924	0.954	103.2
Expected Years of Schooling	16.0	16.0	100.0
Expected Years of Schooling Index	0.889	0.889	100.0
➤ <b>Education Index</b>	<b>0.926</b>	<b>0.942</b>	<b>101.7</b>
GNI per capita (2005 US PPP adjusted dollars)	35,166	36,085	102.6
➤ <b>Income Index</b>	<b>0.840</b>	<b>0.843</b>	<b>100.4</b>
➤ <b>HDI</b>	<b>0.908</b>	<b>0.917</b>	<b>101.0</b>

**Notes:** For "2011 HDR", CSLS uses the data listed in the 2011 HDR and calculates the indices and HDI identically to the other column. Any discrepancies with the 2011 HDR can be attributed to rounding.

**Source:** CSLS estimates from Table 1, 2, 3, 5 and 2011 HDR.

### **III. Estimates of the Human Development Index for the Canadian Provinces and Territories**

It is clear from the previous section that it is not possible to exactly replicate the estimates of the HDI indicators for Canada using Canadian data sources. This implies that using the same methodologies and data sources for the Canadian provinces and territories will not result in estimates that are internationally comparable in the context of the 2011 HDR rankings. As a result, directly calculating each province and territory's HDI using the raw estimates developed by the CSLS is not the most accurate estimation strategy. Thus, another method will be employed. Internationally comparable estimates for the provinces and territories are obtained by taking the proportion that each province and territory's estimate represents of the corresponding Canadian estimate and applying that ratio to Canada's 2011 HDR official estimates.

To obtain the proportions needed to develop the internationally comparable estimates, the provincial and territorial estimates are developed using the same methodology and data sources used in replicating Canada's HDI in the previous section. This reduces as much as possible any error arising from using the proportion method of estimating the provincial and territorial HDIs. Therefore, this section will estimate the dimension indices of the HDI (life expectancy, education and income) for each Canadian province or territory in a manner that is as consistent as possible with the 2011 HDR. The HDI results and rankings for each province will then be discussed.<sup>18</sup>

#### **A. Life Expectancy**

The life expectancy data for the provinces and territories are taken from the same Statistics Canada table as that for Canada, and therefore estimates are available up to 2008. CSLS developed estimates for 2009-2011 by employing the historical growth rates of life expectancy in each province and territory from 1991 to 2008 (Appendix Table 1).

Table 7 shows these raw CSLS estimates in addition to the 2011 HDR consistent estimates and the resulting life expectancy index for 2000, 2005 and 2011. It is notable that the spread between the lowest and highest life expectancy decreased between 2000 (12.7 years) and 2011 (9.3 years). This decreased variation is largely caused by the 5.2 year increase in the average life expectancy of Nunavut between 2000 and 2011. Despite this relatively large improvement, Chart 1 illustrates that in 2011, Nunavut still had by far the lowest life expectancy of all the regions. For this year, this territory's life expectancy was estimated to be 73.0 years, which was 4.6 years lower than the next lowest jurisdiction (Yukon, 77.6 years).

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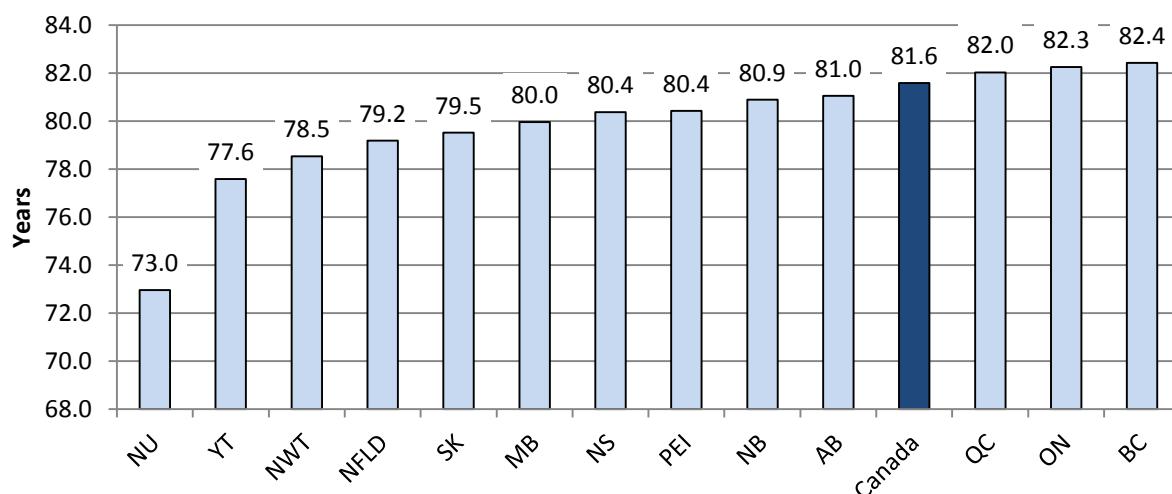
<sup>18</sup> Due to data limitations, this report will focus on the period 2000 to 2011 when discussing trends over time. Full time series on all of the HDI domains are available in the Appendix Tables. Caution should be taken when interpreting education data for the Territories because of the small number of people involved.

**Table 7: Life Expectancy Estimates and Index, Canada and the Provinces/Territories, 1990, 2000, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Raw Estimates (years)														
2000	79.4	77.3	78.2	78.6	78.8	79.2	79.5	78.1	78.6	79.5	80.5	75.6	75.9	67.8
2005	80.4	78.2	79.8	79.3	79.8	80.4	80.7	79.0	79.3	80.3	81.2	77.0	78.0	72.0
2011	81.6	79.2	80.4	80.4	80.9	82.0	82.3	80.0	79.5	81.0	82.4	77.6	78.5	73.0
2011 HDR Consistent Estimates (years)														
2000	79.1	77.0	77.9	78.3	78.5	78.9	79.2	77.8	78.3	79.2	80.2	75.3	75.6	67.5
2005	80.1	77.9	79.5	79.0	79.5	80.1	80.4	78.7	79.0	80.0	80.9	76.7	77.7	71.7
2011	81.0	78.6	79.8	79.8	80.3	81.4	81.7	79.4	79.0	80.5	81.8	77.0	78.0	72.4
Life Expectancy Index														
2000	0.932	0.899	0.913	0.920	0.923	0.929	0.934	0.912	0.920	0.934	0.949	0.872	0.877	0.750
2005	0.948	0.913	0.939	0.931	0.939	0.948	0.953	0.926	0.931	0.946	0.961	0.895	0.910	0.816
2011	0.962	0.925	0.944	0.943	0.951	0.969	0.973	0.937	0.930	0.954	0.975	0.900	0.914	0.827

**Source:** Appendix Table 11.

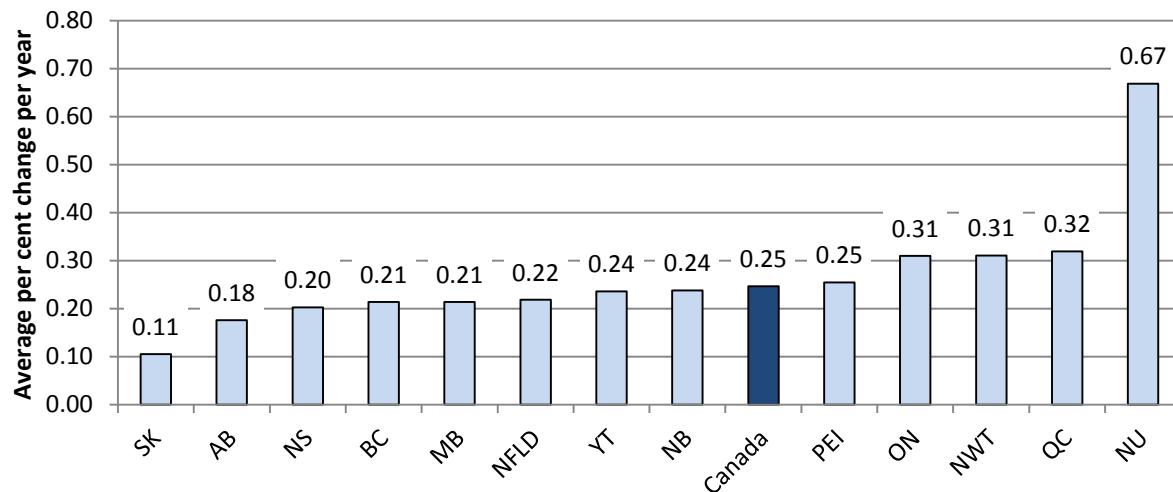
**Chart 1: Life Expectancy, Raw Estimates, Canada and the Provinces/Territories, 2011**



The growth rates were similar for all provinces and territories, ranging from 0.15 to 0.25 per cent per year over the 2000-2011 period, with the notable exceptions of Saskatchewan (0.11 per cent per year), Ontario (0.31 per cent per year), Quebec (0.32 per cent per year), and Nunavut (0.67 per cent per year) (Chart 2).

Table 8 shows the ranking of the provinces and territories (where 1 is the highest performing province in that indicator) for 2000, 2005, and 2011. Most of the provinces and territories maintained the same relative position between 2000 and 2011; for example, Nunavut was 13<sup>th</sup> for all three years and British Columbia remained the top province. The province that fell the most in the rankings was Saskatchewan, from sixth to ninth place. This was reflected in the compound annual growth rates, as Saskatchewan had the worst growth rates of all thirteen regions (Chart 2). On the other hand, despite the very rapid growth in life expectancy between 2000 and 2011, Nunavut continued to lag behind the other provinces and territories.

**Chart 2: Compound Annual Growth in Raw Estimates of Life Expectancy, per cent per year, Canada and the Provinces/Territories, 2000-2011**



Examining the rankings of the regions' life expectancies in the 2011 HDR international rankings highlights the discrepancies between the regions. Table 8 reports the rankings of the provinces and territories from entering each (alone) into the international rankings as if it were a country. British Columbia, the top Canadian province or territory, would rank sixth, while Nunavut, the lowest ranking province or territory, would be in 100<sup>th</sup> place.

**Table 8: Life Expectancy Rank, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Regional Rank (Based on Raw Estimates)														
2000	-	10	8	6	5	4	2	9	6	2	1	12	11	13
2005	-	10	5	7	5	3	2	9	7	4	1	12	11	13
2011	-	10	6	7	5	3	2	8	9	4	1	12	11	13
2011 International HDR Rank (Based on 2011 HDR Consistent Estimates)														
2011	13	35	26	26	21	9	7	30	34	20	6	40	38	100

**Note:** The "2011 International HDR Rank" is based on introducing that province alone into the 2011 HDR international rankings as if it were a country.

## B. Education

### i. Average Years of Education

Average educational attainment for Canada and the provinces/territories is calculated using LFS data (Appendix Table 8). It is calculated in exactly the same manner as described for Canada, allocating 8 years for those with at most primary education, 12 years for those with at most secondary and 14 for those who have a tertiary education. The resulting estimates are reported for 2000, 2005 and 2011 in Table 9.

Examining the raw estimates for average educational attainment, the gap between the lowest and highest average educational attainment estimates were almost the same in both 2000

(1.5 years) and 2011 (1.8 years). The primary reason for this gap was due to Nunavut's educational attainment rate, which was 1.2 years lower than the second lowest province or territory in 2011 (Newfoundland and Labrador, 12.1 years). Indeed, without Nunavut, the gap between the lowest and highest average educational attainment estimates was only 0.8 years in 2000 and 0.6 years in 2011. These differences translate into rankings between fifth and 13<sup>th</sup> place in the 2011 HDR international rankings for every region other than Nunavut, which ranked at 30<sup>th</sup> place (Table 10).

**Table 9: Average Educational Attainment Estimates and Index, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Raw Estimates (years)														
2000	11.9	11.4	11.5	11.8	11.6	11.6	12.1	11.7	11.7	12.2	12.2	12.2	12.2	10.7
2005	12.2	11.8	12.0	12.1	11.9	12.0	12.3	12.0	12.0	12.4	12.4	12.5	11.9	10.3
2011	12.5	12.1	12.3	12.4	12.1	12.3	12.6	12.3	12.3	12.6	12.7	12.5	12.2	10.9
2011 HDR Consistent Estimates (years)														
2000	11.1	10.6	10.7	11.0	10.8	10.8	11.2	10.9	10.9	11.3	11.4	11.3	11.3	9.9
2005	11.3	10.9	11.1	11.2	11.0	11.1	11.4	11.1	11.1	11.5	11.5	11.5	11.0	9.5
2011	12.1	11.7	11.9	12.0	11.7	11.9	12.2	11.9	11.9	12.2	12.3	12.1	11.8	10.6
Average Educational Attainment Index														
2000	0.847	0.810	0.818	0.839	0.822	0.826	0.857	0.834	0.829	0.865	0.867	0.864	0.864	0.760
2005	0.863	0.830	0.848	0.854	0.838	0.848	0.871	0.846	0.847	0.877	0.875	0.881	0.842	0.725
2011	0.924	0.894	0.906	0.913	0.894	0.911	0.931	0.908	0.908	0.931	0.936	0.924	0.899	0.808

**Source:** Appendix Table 12.

**Chart 3: Average Educational Attainment, Raw Estimates, Canada and the Provinces/Territories, 2011**

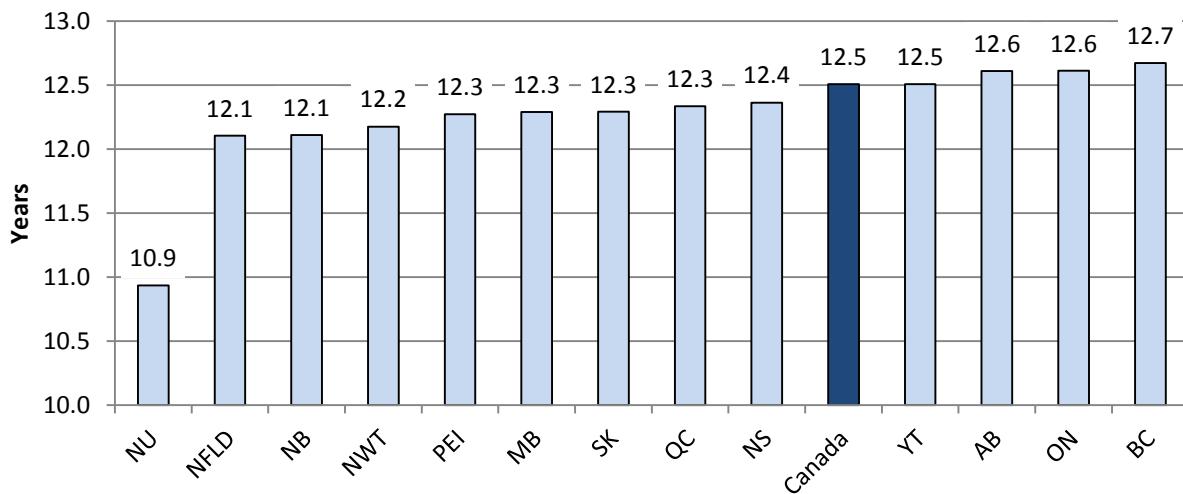


Table 10 also shows the ranking of each province and territory within Canada. There is some change between 2000 and 2011 in terms of rankings among the different provinces and territories. The level of average educational attainment in the Northwest Territories has not improved since 2000, leading to a drop from third to tenth place. Quebec and Ontario, conversely, improved their relative position (ninth to sixth, and fifth to second place

respectively). On the other hand, British Columbia, Alberta, and Yukon are consistently among the top provinces and territories, while New Brunswick, Newfoundland and Labrador, and Nunavut are consistently in the bottom four throughout the period.

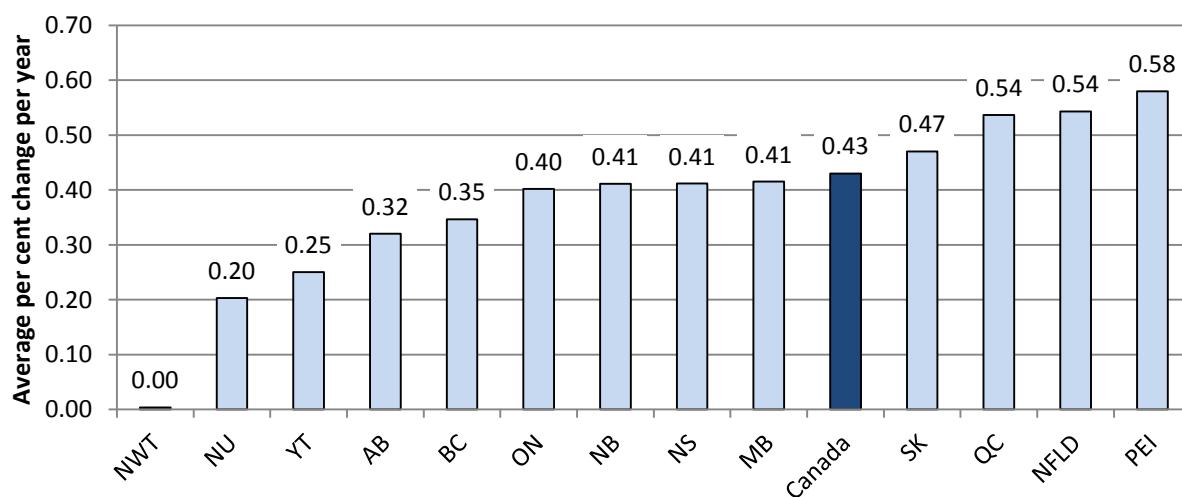
**Table 10: Average Educational Attainment Rank, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Regional Rank (Based on Raw Estimates)														
2000	-	12	11	6	10	9	5	7	8	2	1	4	3	13
2005	-	12	6	5	11	7	4	9	8	2	3	1	10	13
2011	-	12	9	5	11	6	2	8	7	3	1	4	10	13
2011 International HDR Rank (Based on 2011 HDR Consistent Estimates)														
2011	6	13	12	11	13	11	6	12	12	6	5	9	12	30

**Note:** The "2011 International HDR Rank" is based on introducing that province alone into the 2011 HDR international rankings as if it were a country.

There is some evidence that provinces and territories are converging in average educational attainment by the growth rates for 2000-2011, which are illustrated in Chart 4. Yukon, British Columbia, and Alberta were among the top ranked provinces in 2011 but were also among the regions with the slowest growth (less than 0.35 per cent per year), while Newfoundland and Labrador and Prince Edward Island had compound annual growth rates that were above the national average (0.43 per cent per year). The Northwest Territories and Nunavut were the exceptions, as they had both a low rank in 2011 and the lowest compound annual growth rates of all Canadian regions (0.00 and 0.20 per cent per year respectively).

**Chart 4: Compound Annual Growth in Average Educational Attainment, per cent per year, Canada and the Provinces/Territories 2000-2011**



## ii. Expected Years of Schooling

Expected years of schooling are estimated for the provinces and territories using LFS data. Once again, the methodology used here is identical to that used to replicate the Canadian estimates (Appendix Table 9). In 2011, the raw estimate for Canada is identical (to one decimal place) to the official estimate from the 2011 HDR, resulting in 2011 HDR consistent estimates that are very close to the raw estimates listed for that year in Table 11.

**Table 11: Expected Years of Schooling Estimates and Index, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Raw Estimates (years)														
2000	15.6	15.7	15.1	15.7	14.9	15.7	15.9	15.0	15.1	14.8	15.6	13.9	14.5	13.1
2005	15.9	15.7	15.3	15.6	15.3	16.1	16.2	15.4	15.1	14.9	15.7	13.8	14.1	13.3
2011	16.0	15.6	15.5	15.8	15.4	16.4	16.2	15.3	15.0	15.0	15.9	14.3	14.6	12.8
2011 HDR Consistent Estimates (years)														
2000	15.9	16.0	15.4	16.0	15.2	16.0	16.2	15.3	15.4	15.1	15.9	14.1	14.8	13.4
2005	16.0	15.9	15.4	15.7	15.4	16.2	16.4	15.6	15.3	15.1	15.8	13.9	14.2	13.4
2011	16.0	15.6	15.5	15.8	15.4	16.4	16.3	15.3	15.0	15.0	16.0	14.3	14.7	12.8
Expected Years of Schooling Index														
2000	0.883	0.888	0.856	0.889	0.843	0.891	0.898	0.848	0.854	0.841	0.886	0.786	0.821	0.742
2005	0.889	0.881	0.858	0.872	0.858	0.902	0.909	0.865	0.848	0.836	0.878	0.773	0.790	0.745
2011	0.889	0.865	0.862	0.876	0.854	0.914	0.903	0.853	0.835	0.834	0.887	0.793	0.814	0.711

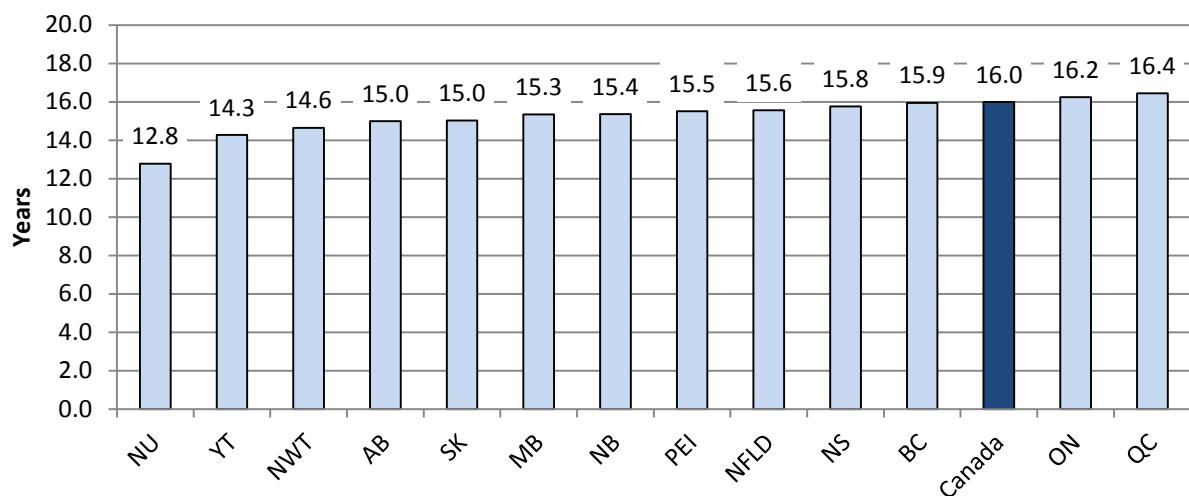
**Source:** Appendix Table 13.

An examination of the raw estimates shows that roughly one year and a half separates the lowest and highest ranking provinces in both 2000 and 2011, with all three territories below the lowest ranking province. The similarity in expected years of schooling across provinces is illustrated for 2011 in Chart 5. The highest expected years of schooling in 2011 was in Quebec at 16.4 years, closely followed by Ontario (16.2 years).<sup>19</sup>

Compared to average educational attainment, there was less movement in the regional rankings between 2000 and 2011 for this measure of education (Table 12). Quebec and Ontario remained in the top two positions, while the three territories occupied the bottom three places between 2000 and 2011. None of the provinces changed their relative position by more than two places in the time frame. It is noteworthy that the top and bottom regions in 2011 are not the same for average educational attainment and expected years of schooling. Indeed, Alberta was in third place for the former and tenth place for the latter, while Newfoundland and Labrador was twelfth for the former and fifth place for the latter in 2011. In both 2000 and 2011, all three territories were in the bottom three places for expected years of schooling.

<sup>19</sup> In 2011, the LFS shows that 48.8 per cent of the population aged 15 to 29 was attending school in Quebec, compared to the Canadian average of 45.4 per cent. The respective figures for the 15-19 age group were 84.4 per cent versus 83.7 per cent, for the 20-24 age group 46.9 per cent versus 41.9 per cent, and for the 25-29 age group 17.7 per cent versus 14.2 per cent.

**Chart 5: Expected Years of Schooling, Raw Estimates, Canada and the Provinces/Territories, 2011**



**Table 12: Expected Years of Schooling Rank, Canada and the Provinces/Territories, 2000, 2005, and 2011**

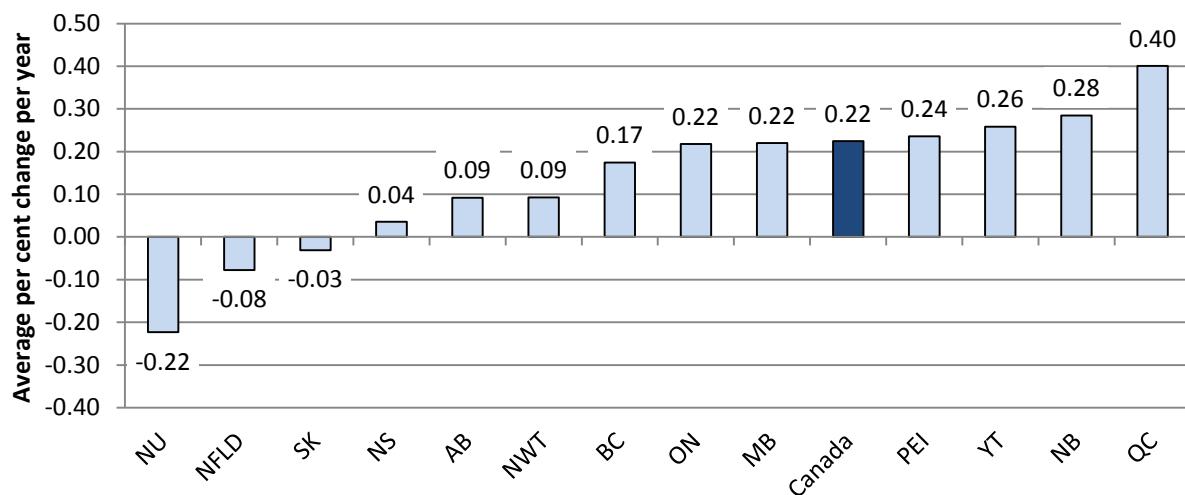
Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Regional Rank (Based on Raw Estimates)														
2000	-	4	6	3	9	2	1	8	7	10	5	12	11	13
2005	-	3	8	5	7	2	1	6	9	10	4	12	11	13
2011	-	5	6	4	7	1	2	8	9	10	3	12	11	13
2011 International HDR Rank (Based on 2011 HDR Consistent Estimates)														
2011	22	31	32	25	33	15	16	33	38	38	22	50	46	89

**Note:** The "2011 International HDR Rank" is based on introducing that province alone into the 2011 HDR international rankings as if it were a country.

The growth rates indicate that the gap in expected years of schooling over time between the top and bottom ranked regions is increasing (Chart 6). Nunavut was the lowest ranked region in 2000 and experienced significant negative growth from 2000 to 2011, while Quebec, the top ranked province in 2000, experienced the highest growth of all provinces. However, other than these two regions, there does not seem to be significant positive or negative correlation between the regions' ranking and their growth rate.

Since many developed countries are clustered around the same values for expected years of schooling in the 2011 HDR international rankings, the provinces and territories are remarkably spread out in terms of ranking considering how close their estimates are in number. Indeed, while Ontario would be in 15<sup>th</sup> place, Nunavut would be 89<sup>th</sup>.

**Chart 6: Compound Annual Growth in Expected Years of Schooling, per cent per year, Canada and the Provinces/Territories, 2000-2011**



## C. Income

In the 2011 HDR, the indicator for the income dimension is GNI per capita. Unfortunately, Statistics Canada has not developed a GNI measure for the Canadian provinces and territories. The best way to approximate this income measure is to adjust provincial and territorial GDP by the national difference observed between nominal GNI and GDP in that year (Canada's GNI was 98.2 per cent of Canada's GDP in 2011).<sup>20</sup> Once a province or territory's GDP is adjusted by the national nominal GDP to GNI ratio, population estimates are used to obtain GNI per capita. Since, at the time of writing, provincial and territorial estimates of nominal income-based GDP were not available for 2011, provincial and territorial nominal GDP was estimated for this year using provincial real GDP growth for all industries (in CANSIM table 379-0025) and applying the national GDP deflator for 2011. The raw estimates for 2000, 2005, and 2011 are presented in Table 13. It should be noted that there are no purchasing power parity (PPP) data available to correct for price differences across Canada, so one dollar is assumed to buy the same amount of goods in all provinces. This may be an unrealistic assumption, but lacking PPP data by province, no other assumption can be reasonably made.

Unlike the other indicators that make up the HDI, there is quite substantial variation in estimated GNI per capita between provinces and territories, ranging from \$24,023 (current dollars) to \$60,512 in 2000 and \$34,778 to \$101,708 in 2011. Indeed, the Northwest Territories, the top ranking province or territory, had almost triple the estimated GNI per capita of Prince Edward Island, the lowest ranking one (Chart 7).

<sup>20</sup> Nominal GNI is equal to nominal GNP, which is equal to GDP plus net income from non-residents.

**Table 13: Gross National Income per capita Estimates and Income Index, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Raw Estimates (current dollars)														
2000	34,170	25,683	24,023	25,718	26,065	29,777	36,743	28,911	32,700	46,941	31,668	38,087	60,512	29,540
2005	41,808	41,893	29,113	32,640	32,425	35,209	42,089	34,711	43,450	64,924	39,669	46,043	96,478	36,787
2011	48,966	56,836	34,778	38,602	39,064	40,733	46,794	43,899	63,057	73,412	45,761	71,085	101,708	56,811
Raw Estimates (2005 PPP adjusted US dollars)														
2000	30,792	23,143	21,647	23,175	23,488	26,833	33,111	26,053	29,467	42,300	28,537	34,321	54,529	26,619
2005	34,448	34,519	23,988	26,894	26,717	29,011	34,680	28,601	35,802	53,495	32,686	37,938	79,494	30,312
2011	36,058	41,853	25,610	28,426	28,766	29,995	34,458	32,327	46,434	54,059	33,698	52,346	74,896	41,835
2011 HDR Consistent Estimates (2005 PPP adjusted US dollars)														
2000	31,602	23,752	22,217	23,785	24,106	27,539	33,981	26,738	30,242	43,412	29,287	35,224	55,963	27,319
2005	34,380	34,451	23,941	26,841	26,664	28,954	34,611	28,544	35,731	53,389	32,622	37,863	79,337	30,252
2011	35,166	40,818	24,976	27,723	28,055	29,254	33,606	31,527	45,286	52,722	32,864	51,051	73,044	40,800
Income Index														
2000	0.824	0.783	0.774	0.784	0.786	0.805	0.835	0.800	0.818	0.870	0.813	0.840	0.906	0.804
2005	0.836	0.837	0.785	0.801	0.800	0.812	0.837	0.810	0.842	0.899	0.829	0.850	0.956	0.818
2011	0.840	0.861	0.791	0.806	0.807	0.813	0.833	0.824	0.876	0.898	0.830	0.893	0.944	0.861

Source: Appendix Table 15.

**Chart 7: GNI per capita, current dollars, Raw Estimates, Canada and the Provinces/Territories, 2011**

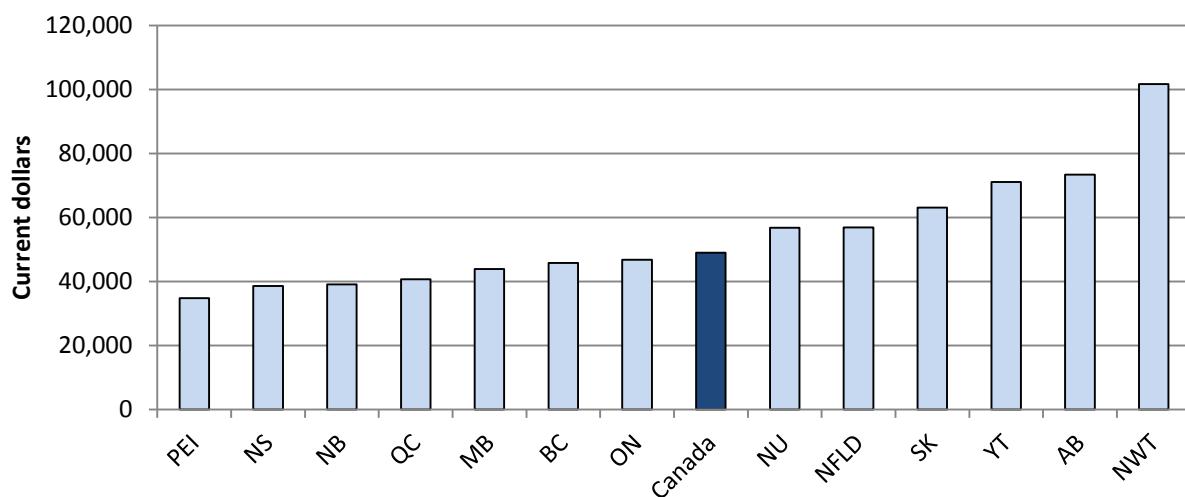
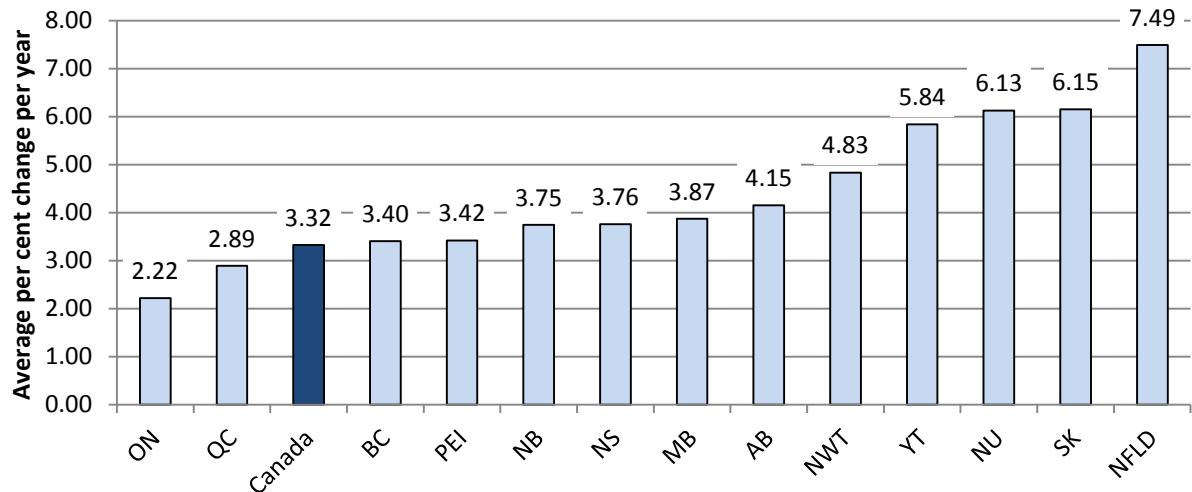


Table 14 illustrates the ranking among provinces and territories in this indicator from 2000 to 2011. Most provinces and territories remain in similar positions, with Northwest Territories, Alberta, and the Yukon dominating the rankings and Prince Edward Island ranked last throughout the period. Three provinces, however, moved significantly in the rankings: Newfoundland and Labrador rose from twelfth to fifth place, while Quebec and Ontario fell from seventh to tenth place, and fourth to seventh place respectively. These substantial changes in relative position among these provinces were also reflected in the growth rates of these provinces, for Newfoundland and Labrador's nominal GNI per capita grew the fastest at 7.49 per cent per year from 2000 to 2011, while Ontario and Quebec both experienced nominal GNI per capita growth below the national average of 3.32 per cent per year (Chart 8).

**Chart 8: Compound Annual Growth in Nominal GNI per capita, per cent per year, Canada and the Provinces/Territories, 2000-2011**



Looking at the provinces and territories' placements in the 2011 HDR international rankings, there is not surprisingly a substantial difference between the ranks of the top and bottom regions. The Northwest Territories would claim the third spot, while Prince Edward Island is in just 32<sup>nd</sup> place (Table 14).

**Table 14: Gross National Income per capita Rank, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Regional Rank (Based on Raw Estimates)														
2000	-	12	13	11	10	7	4	9	5	2	6	3	1	8
2005	-	6	13	11	12	9	5	10	4	2	7	3	1	8
2011	-	5	13	12	11	10	7	9	4	2	8	3	1	6
2011 International HDR Rank (Based on 2011 HDR Consistent Estimates)														
2011	16	11	32	29	29	27	20	24	9	4	22	5	3	11

**Note:** The "2011 International HDR Rank" is based on introducing that province alone into the 2011 HDR international rankings as if it were a country.

## D. Overall Human Development Index

Since the CSLS's methods and Canadian data sources result in estimates that are reasonably close to those in the 2011 HDR, but not identical, the CSLS takes the ratio of each region's raw estimate to the national raw estimate and applies it to the 2011 HDR's official estimates for Canada in order to obtain an internationally comparable HDI estimate for the region. This method results in provincial and territorial estimates that are compatible with the 2011 HDR while still representing the same relationship as is shown between the raw CSLS estimates for the provinces/territories and Canada. Estimates for the provinces and territories may be over or underestimated relative to Canada based on assumptions made by the CSLS that were not made in the 2011 HDR, resulting in slightly different relationships than if the same calculations were done by the HDR. However, this type of error is likely to have small effects.

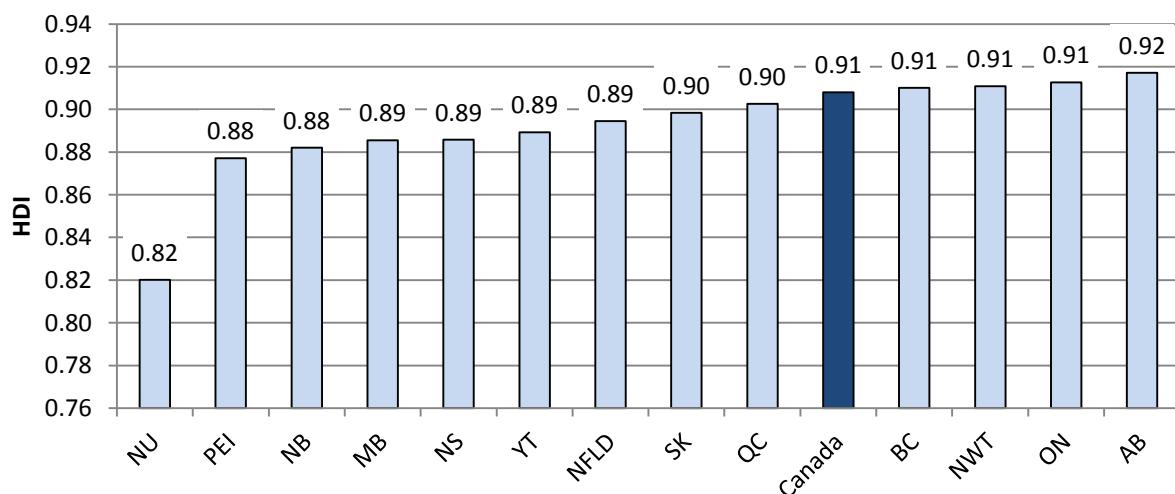
The CSLS's HDI estimates for Canada and the provinces/territories are given for 2000, 2005, and 2011 in Table 15 and the provincial and territorial ranking for 2011 is illustrated in Chart 9. Alberta was found to have the highest HDI of all regions or jurisdictions, while Ontario and the Northwest Territories came in second and third. Nunavut and Prince Edward Island were in the bottom two places for 2011.

**Table 15: Human Development Index, Canada and the Provinces/Territories, 2000, 2005, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
HDI Estimates (Based on 2011 HDR Consistent Estimates)														
2000	0.879	0.849	0.846	0.860	0.851	0.869	0.888	0.856	0.865	0.891	0.884	0.852	0.881	0.773
2005	0.892	0.874	0.863	0.870	0.867	0.883	0.899	0.869	0.879	0.907	0.894	0.863	0.899	0.795
2011	0.908	0.894	0.877	0.886	0.882	0.903	0.913	0.885	0.898	0.917	0.910	0.889	0.911	0.820

**Source:** Appendix Table 16.

**Chart 9: Human Development Index, Canada and the Provinces/Territories, 2011**



Given the relative stability in provincial and territorial rank observed within Canada for most regions in most indicators, it is not surprising to see little variation in the provincial and territorial HDI rank over time (Table 16). Alberta, Ontario, British Columbia, Northwest Territories, and Quebec were in the first through fifth places throughout the 2000 to 2011 period. The only province or territory that changed rank significantly was Newfoundland and Labrador, which rose from 11<sup>th</sup> place in 2000 to seventh in 2011 as its income per capita increased dramatically.

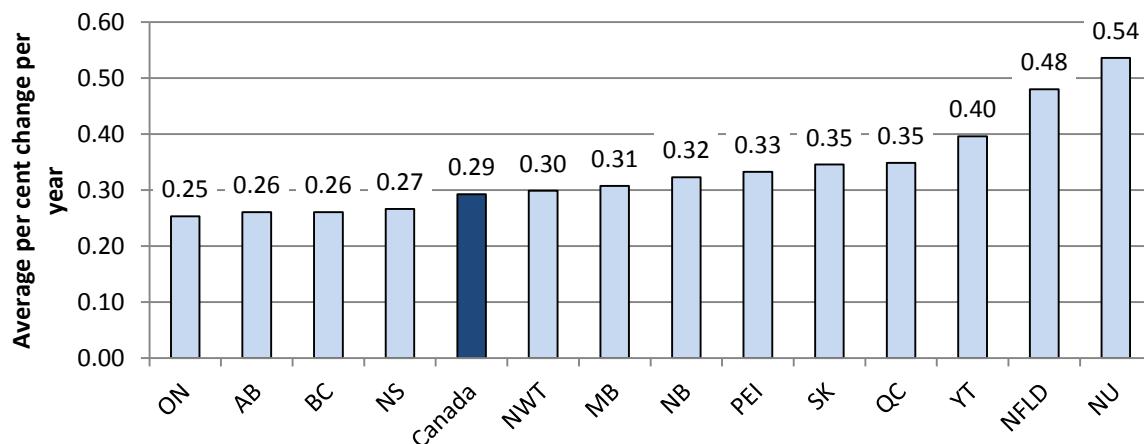
**Table 16: Human Development Index Rank, Canada and the Provinces/Territories, 1990, 2000, and 2011**

Year	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Regional Rank (Based on Raw Estimates)														
2000	-	11	12	7	10	5	2	8	6	1	3	9	4	13
2005	-	7	11	8	10	5	2	9	6	1	4	12	3	13
2011	-	7	12	9	11	5	2	10	6	1	4	8	3	13
2011 International HDR Rank (Based on 2011 HDR Consistent Estimates)														
2011	6	17	24	18	23	11	3	19	13	3	3	17	3	38

**Note:** The "2011 International HDR Rank" is based on introducing that province alone into the 2011 HDR international rankings as if it were a country.

Nunavut experienced the fastest growth, nearly double the national average (0.54 versus 0.29 per cent per year), followed closely behind by Newfoundland and Labrador (0.48 per cent per year) (Chart 10). Ontario had the worst performance, at 0.25 per cent year, closely followed by Alberta and British Columbia (both at 0.26 per cent per year). There may be some evidence of convergence in HDI as three of the regions with the highest HDI in 2011 (Alberta, Ontario, and British Columbia) had below average growth in HDI, while bottom three ranked regions (Nunavut, Prince Edward Island, and New Brunswick) had above average growth in HDI.

**Chart 10: Compound Annual Growth Rate in the HDI, per cent per year, Canada and the Provinces/Territories, 2000-2011**



Examining the provincial performance in the 2011 HDR international rankings, Alberta, Ontario, British Columbia, and the Northwest Territories all come in third place (Table 16). This implies that these provinces had levels of human development below the Netherlands (second highest HDI in the world), but higher than the Netherlands and United States (third and fourth respectively). Nunavut, on the other hand, comes in 38<sup>th</sup> place in the international HDI rankings, showing a similar level of human development as Poland and Hungary. It is also important to understand why Alberta is the top ranking region, and Nunavut is the lowest ranking one. Given the small differences between provinces and territories in the education indicators, it is clear that these differences are primarily driven by differences in life expectancy and income.

## E. Other Estimates of the Human Development Index in Canada

Although this is the first report to apply the 2011 HDR version of the HDI to the Canadian provinces, there have certainly been previous papers that estimate the HDI for specific Canadian communities or regions. One such paper is McCracken *et al.* (1996), which estimates the 1992 HDI for Atlantic Canada. Unfortunately, the substantial revisions of the HDI methodologies between 1992 and 2011 prevent the results of McCracken *et al.* from being directly comparable to the results obtained here.

The general findings, however, are worth examining. McCracken *et al.* (1996) found that life expectancies were shorter in the Atlantic provinces than they were on average in Canada, while the Atlantic Provinces were on par with the Canadian average for the education index, which in 1992 was constructed from the gross enrolment rate and literacy data. In contrast, income, as measured by GDP per capita, was lower in the Atlantic region than in Canada as a whole. Overall, the HDI was found to be lower for Atlantic Canada than it was for Canada as a whole.

Similar results are found in the 1990 HDI estimates obtained using the 2011 HDR methods shown in the previous section. These 1990 estimates also reveal that the Atlantic provinces (Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick) had life expectancies below the Canadian average of 77.6 years (Appendix Table 11). In addition, all GNI per capita estimates for the provinces were well below the Canadian average in 1990 (Appendix Table 15). However, when it comes to education, all four Atlantic provinces were below the national average in 1990, instead of matching the Canadian average as in McCracken *et al.* in 1992 (Appendix Table 14). This difference can be at least partly explained by the new method of calculating the education index, as it may capture education in this region differently. Finally, in terms of the overall HDI, the Atlantic Provinces are all below the Canadian average, just as in McCracken *et al.* (Appendix Table 16). All of these results also hold true in 2011, with the exception that Newfoundland and Labrador achieves a GNI per capita that is well above the other Atlantic Provinces and the Canadian average in 2011 (although its HDI remains below the Canadian average). Thus, the findings obtained here are consistent with McCracken *et al.* (1996) once the changes in HDI methodology are taken into account.

The HDI has traditionally been approached from a geographical perspective. However, the HDI can also be applied to particular group. Cooke *et al.* (2007) examines indigenous communities in Canada, the United States, New Zealand and Australia, finding that the HDIs of these groups are well below the national averages. Once again, this paper uses an older method of calculating the HDI, and thus the results are not directly comparable to the 2011 HDR results. However, the discrepancy illustrated between Aboriginal Canadians (HDI of 0.815 in 2000) and non-Aboriginal Canadians (HDI of 0.900 in 2000) certainly gives pause for thought. Although Cooke *et al.* find that this gap has narrowed since 1990, in 2000 the gap in HDIs between Aboriginals and non-Aboriginal people in Canada was 0.085, slightly smaller than the size of the gap between the top and bottom jurisdictions in this report in both 2000 (0.118) and 2011 (0.102). Clearly, Canada's HDI glosses over not only the differences across regions and provinces, but also the different circumstances of Aboriginal Canadians too.

## IV. Conclusion

This report has estimated internationally comparable HDIs for Canada and its provinces and territories. A summary of the provincial and territorial rankings for HDI and its component indicators within Canada is presented in Table 17. In 2011, Alberta was the top jurisdiction for the overall HDI and Nunavut the lowest. For both life expectancy and average educational attainment, British Columbia was the top jurisdiction and Nunavut ranked last. For expected years of schooling, Quebec ranked at the top and Nunavut came last, while for GNI per capita, Northwest Territories was in first place and Prince Edward Island was in last.

**Table 17: Summary of Regional Rankings for the Canadian Provinces/Territories, 2011**

Dimension	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Life Expectancy	10	6	7	5	3	2	8	9	4	1	12	11	13
Average Educational Attainment	12	9	5	11	6	2	8	7	3	1	4	10	13
Expected Years of Schooling	5	6	4	7	1	2	8	9	10	3	12	11	13
GNI per capita	5	13	12	11	10	7	9	4	2	8	3	1	6
<b>HDI</b>	<b>7</b>	<b>12</b>	<b>9</b>	<b>11</b>	<b>5</b>	<b>2</b>	<b>10</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>8</b>	<b>3</b>	<b>13</b>

Most provinces experienced similar HDI growth between 2000 and 2011, with two notable exceptions: Nunavut, and Newfoundland and Labrador, where HDI grew the fastest of all provinces at territories at 0.48 per cent per year. This rapid growth was reflected in Newfoundland and Labrador's rise in the rankings from eleventh to seventh place. On the other hand, despite its fast HDI growth, Nunavut was still the lowest ranked jurisdiction in 2011. There is some evidence of convergence in regional HDI as the four provinces with the highest HDI in 2011 had below average HDI growth during the 2000 to 2011 period, while the bottom three ranked provinces had above average growth.

The performance of Canada's provinces and territories in terms of human development in the international context is summarized in Table 18. Of the 187 countries in the 2011 HDR rankings, Canada's regions ranked between sixth and 100<sup>th</sup> in life expectancy, between fifth and 30<sup>th</sup> in average educational attainment, between 15<sup>th</sup> and 89<sup>th</sup> in expected years of schooling and between third and 32<sup>nd</sup> in GNI per capita. For the overall HDI, Canada's provinces and territories ranked between third and 38<sup>th</sup> place. It is therefore clear that Canada's overall HDI masks substantial variation among the provinces and territories.

**Table 18: Summary of 2011 International HDR Ranks, Canada and the Provinces/Territories, 2011**

Dimension	CAN	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
Life Expectancy	13	35	26	26	21	9	7	30	34	20	6	40	38	100
Average Educational Attainment	6	13	12	11	13	11	6	12	12	6	5	9	12	30
Expected Years of Schooling	22	31	32	25	33	15	16	33	38	38	22	50	46	89
GNI per capita	16	11	32	29	29	27	20	24	9	4	22	5	3	11
<b>HDI</b>	<b>6</b>	<b>17</b>	<b>24</b>	<b>18</b>	<b>23</b>	<b>11</b>	<b>3</b>	<b>19</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>17</b>	<b>3</b>	<b>38</b>

## References

Barro, R. and J.W. Lee (2001) "International Data on Educational Attainment: Updates and Implications," *Oxford Economic Papers*, Vol. 53, No.3, pp. 541-563.

Barro, R. J., and J. W. Lee (2010) *A New Data Set of Educational Attainment in the World, 1950–2010*, NBER Working Paper 15902 (Cambridge, MA: National Bureau of Economic Research).

Brockington, Riley (2009) *Summary Public School Indicators for Canada, the Provinces and Territories, 2000/2001 to 2006/2007*, Catalogue no. 81-595-M, No. 078 (Ottawa: Statistics Canada).

Cohen, D. and M. Soto (2007) "Growth and Human Capital: Good Data, Good Results," *Journal of Economic Growth*, Vol.12, pp. 51–76.

Cooke, Martin (2007a) "The Registered Indian Human Development Indices: Conceptual and Methodological Issues," in *Aboriginal Well-being: Canada's Continuing Challenge*, edited by Jerry White, Dan Beavon and Nicholas Spence (Thompson Educational Publishing).

Cooke, Martin (2007b) "Using the UNDP Indices to Examine Gender Equality and Well-being," in *Aboriginal Well-being: Canada's Continuing Challenge*, edited by Jerry White, Dan Beavon and Nicholas Spence (Thompson Educational Publishing).

Cooke, Martin and Dan Beavon (2007) "The Registered Indian Human Development Index, 1981-2001," in *Aboriginal Well-being: Canada's Continuing Challenge*, edited by Jerry White, Dan Beavon and Nicholas Spence (Thompson Educational Publishing).

Cooke, Martin, Francis Mitrou, David Lawrence, Eric Guimond, and Dan Beavon (2007) "Aboriginal Well-being in Four Countries: An Application of the UNDP's Human Development Index to Aboriginal People in Australia, Canada, New Zealand, and the United States," *BMC International Health and Human Rights* Vol. 7 No.9.

IMF (International Monetary Fund) (2009) *World Economic Outlook: Sustaining the Recovery* (Washington, DC).

IMF (International Monetary Fund) (2010a) *Government Finance Statistics* (Washington, DC).

IMF (International Monetary Fund) (2010b) *World Economic Outlook Update: An Update of the Key WEO Projections* (Washington, DC).

Lind, Niels (2010) "A Calibrated Index of Human Development." *Social Indicators Research*, Vol. 98, No.2, pp. 301-319.

Maddison, A. (2010) *Historical Statistics of the World Economy: 1–2008 AD* (Paris: Organisation for Economic Co-operation and Development).

McCracken, Mike, Martha Justus, and Bing He (1996) "Atlantic Canada: Human Development Index Study," prepared by Informetrica for the Atlantic Canada Opportunities Agency, March.

McGillivray, Mark (1991) "The Human Development Index: Yet Another Redundant Composite Development Indicator?" *World Development*, Vol. 19, No.10, pp. 1461-1468.

Ross and Murray (2010) "Aggregate Measures of Income and Output in Canada and the United States: Implications for Productivity and Living Standards," *International Productivity Monitor* Number 19, Spring, pp. 20-39.

Oreopoulos, Philip (2006) "The compelling effects of compulsory schooling: evidence from Canada," *Canadian Journal of Economics*, Vol. 39, No. 1, pp. 22-52.

Riley, J.C (2005) *Poverty and Life Expectancy* (Cambridge, UK: Cambridge University Press).

Sagar, Ambuj D. and Adil Najam (1998) "The human development index: a critical review" *Ecological Economics*, Vol. 25, pp. 249-264.

Statistics Canada (2000) *Health Indicators*. Catalogue No. 82-221-XIE, December.

Srinivasan, T.N. (1994) "Human Development: A New Paradigm or Reinvention of the Wheel?" *American Economic Review*, Vol. 84, No.2, pp. 238-243.

UNDESA (United Nations Department of Economic and Social Affairs) (2011) *World Population Prospects: The 2010 Revision* (New York).

(UIS) UNESCO Institute for Statistics (2009) *Education Indicators: Technical Guidelines*. Retrieved from:  
[http://www.uis.unesco.org/template/pdf/EducGeneral/Indicator\\_Technical\\_guidelines\\_EN.pdf](http://www.uis.unesco.org/template/pdf/EducGeneral/Indicator_Technical_guidelines_EN.pdf)

UNDP (United Nations Development Programme)–Human Development Report Office (2011) *Human Development Report 2011* (New York: Palgrave Macmillan).

World Bank (2010) *World Development Indicators 2010* (Washington, DC).

## Appendix 1: Statistics Canada Data

**Appendix Table 1: Life Expectancy at Birth, Canada, Provinces and Territories, Both Sexes, 1979-2011**

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1979	74.9	75.4	75.4	74.2	74.3	74.1	75.3	75.3	76.0	75.2	75.6	70.0	-	-
1980	75.2	74.8	75.9	74.2	74.5	74.5	75.5	75.4	75.9	75.1	76.0	69.9	-	-
1981	75.6	75.6	76.7	74.6	75.1	75.1	75.9	75.2	76.3	75.5	76.2	68.1	-	-
1982	75.8	75.3	77.1	75.1	75.3	75.4	76.1	75.9	75.7	75.9	76.3	70.7	-	-
1983	76.1	75.1	76.0	75.1	75.8	75.5	76.3	76.0	76.9	76.6	77.2	71.4	-	-
1984	76.4	75.4	76.4	75.9	76.0	75.8	76.7	76.8	77.1	76.8	77.2	72.8	-	-
1985	76.4	75.6	76.4	75.4	76.3	75.8	76.7	76.4	76.7	76.7	77.3	71.3	-	-
1986	76.6	76.2	75.8	75.9	76.1	75.9	76.9	76.5	76.9	76.7	77.6	72.7	-	-
1987	76.9	76.0	77.2	76.3	76.6	76.1	77.2	76.8	77.5	77.3	77.7	73.9	-	-
1988	77.0	76.3	77.0	76.1	76.8	76.5	77.2	76.7	77.3	77.2	77.7	71.0	-	-
1989	77.3	76.2	76.9	76.3	76.9	76.7	77.5	77.3	78.0	77.7	77.9	76.8	-	-
1990	77.6	76.1	76.6	76.7	77.3	77.1	77.9	77.5	78.0	77.9	78.1	74.4	-	-
1991	77.8	76.7	76.4	77.3	77.7	77.3	78.0	77.6	78.1	78.1	78.4	74.7	75.9	68.3
1992	78.0	76.9	77.5	77.1	77.6	77.7	78.2	77.9	78.9	78.3	78.4	75.8	74.3	67.3
1993	77.9	76.8	77.1	77.4	77.5	77.4	78.1	77.6	78.5	78.2	78.3	75.2	75.3	67.0
1994	78.0	76.6	78.0	77.2	77.6	77.7	78.2	77.9	78.4	78.3	78.6	75.1	75.6	71.5
1995	78.2	77.2	77.4	77.8	77.7	77.6	78.4	77.6	78.1	78.5	78.9	72.8	77.4	70.7
1996	78.4	77.5	77.2	77.7	78.1	78.1	78.6	78.1	78.3	78.5	78.9	76.6	76.3	69.0
1997	78.6	76.9	79.4	77.8	78.2	78.0	78.9	78.1	78.5	78.9	79.3	76.4	76.8	70.4
1998	78.8	77.3	77.4	77.8	78.0	78.3	79.2	78.0	78.5	79.1	79.5	75.8	76.5	66.5
1999	79.0	77.6	78.5	78.8	78.4	78.5	79.3	78.0	78.5	79.2	79.9	76.8	75.3	68.9
2000	79.4	77.3	78.2	78.6	78.8	79.2	79.5	78.1	78.6	79.5	80.5	75.6	75.9	67.8
2001	79.6	78.1	78.9	78.9	79.0	79.4	79.9	78.6	79.2	79.7	80.4	77.5	75.9	69.4
2002	79.7	78.3	78.8	79.0	79.3	79.4	80.1	78.7	79.1	79.7	80.6	76.7	75.8	68.5
2003	79.9	78.2	79.1	79.1	79.2	79.9	80.2	78.7	79.1	79.9	80.8	78.8	74.7	68.5
2004	80.2	78.5	79.2	79.1	79.7	80.1	80.6	78.9	79.3	80.2	80.9	76.4	79.1	70.4
2005	80.4	78.2	79.8	79.3	79.8	80.4	80.7	79.0	79.3	80.3	81.2	77.0	78.0	72.0
2006	80.8	78.2	79.9	79.6	80.1	80.9	81.1	79.3	79.4	80.5	81.4	77.0	78.0	72.0
2007	80.9	78.5	80.9	80.2	80.1	80.8	81.2	79.6	79.8	80.7	81.0	77.0	78.0	72.0
2008	81.0	78.8	79.8	79.9	80.4	81.3	81.6	79.6	79.3	80.6	81.8	77.1	78.1	72.2
2009	81.2	78.9	80.0	80.1	80.6	81.5	81.8	79.7	79.4	80.7	82.0	77.3	78.3	72.5
2010	81.4	79.1	80.2	80.2	80.7	81.8	82.0	79.8	79.4	80.9	82.2	77.4	78.4	72.7
2011	81.6	79.2	80.4	80.4	80.9	82.0	82.3	80.0	79.5	81.0	82.4	77.6	78.5	73.0
Compound Annual Growth Rates														
1991-2008*	0.24	0.16	0.26	0.19	0.20	0.30	0.27	0.15	0.09	0.19	0.25	0.19	0.17	0.33
2000-2011	0.25	0.22	0.25	0.20	0.24	0.32	0.31	0.21	0.11	0.18	0.21	0.24	0.31	0.67
2000-2005	0.25	0.23	0.41	0.18	0.25	0.30	0.30	0.23	0.18	0.20	0.17	0.37	0.55	1.21
2005-2011	0.24	0.21	0.13	0.22	0.23	0.33	0.32	0.20	0.04	0.15	0.25	0.13	0.11	0.22

**Sources:** CANSIM Table 102-4307 for 2005-2007 for YT, NU and NWT (assumed to be the same for all three years), CANSIM Table 102-0025 for 1979-1990 for all series, CANSIM Table 102-0025 for 1991-1999 for NU and NWT, CANSIM Table 102-0511 for 1991-2006 for all series, CANSIM Table 102-0512 for 2007-2008 for all ten provinces and Canada.

**Notes:** Provincial estimates for 2007 and 2008 calculated using CANSIM table 102-0512 three-year life expectancy averages. Italicized estimates for 2009-2011 are extrapolated using compound annual growth rate from 1991-2008 for that province or for Canada.

\* Compound annual growth rate for 1991-2008 for the territories was calculated from 1991-2007 (the last known data point).

**Appendix Table 2: Gross Domestic Product, Canada, Provinces and Territories, 1981-2011**

Appendix Table 2a: GDP, Income-Based at Market Prices, Millions of Current Dollars, Canada, Provinces and Territories, 1981-2011

Year	Canada	Nfld	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	360,471	5,154	1,067	7,970	6,346	80,494	131,064	13,625	14,776	53,391	44,869	475	-	-
1982	379,859	5,609	1,153	9,186	7,052	85,218	138,741	14,053	15,008	56,803	45,024	471	-	-
1983	411,386	5,988	1,356	10,364	8,046	91,832	154,682	15,106	15,969	58,397	47,477	440	-	-
1984	449,582	6,373	1,389	11,437	8,818	100,292	172,842	16,998	17,031	62,282	49,840	455	-	-
1985	485,714	6,647	1,445	12,393	9,373	107,391	189,125	18,536	17,926	66,785	53,540	483	-	-
1986	512,541	7,244	1,630	13,403	10,462	117,156	208,460	19,260	17,772	57,961	56,547	624	-	-
1987	558,949	7,763	1,737	14,432	11,572	128,438	230,778	20,385	18,195	60,070	62,515	879	-	-
1988	613,094	8,467	1,911	15,294	12,438	140,845	256,441	22,016	18,850	63,936	69,408	959	-	-
1989	657,728	8,995	2,059	16,306	13,128	148,431	278,791	23,370	19,977	67,377	75,582	1,021	-	-
1990	679,921	9,219	2,169	16,993	13,458	153,330	282,834	24,193	21,227	73,257	79,350	1,056	-	-
1991	685,367	9,587	2,255	17,650	13,647	155,156	283,094	24,029	21,393	72,892	81,849	955	-	-
1992	700,480	9,549	2,345	18,094	14,038	158,362	286,493	24,434	21,220	74,936	87,242	1,086	-	-
1993	727,184	9,771	2,471	18,343	14,693	162,229	293,405	24,590	22,928	81,179	94,077	882	-	-
1994	770,873	10,264	2,521	18,667	15,286	170,478	311,096	25,958	24,480	88,041	100,512	910	-	-
1995	810,426	10,652	2,662	19,296	16,380	177,331	329,317	26,966	26,425	92,036	105,670	1,047	-	-
1996	836,864	10,417	2,823	19,512	16,626	180,526	338,173	28,434	28,944	98,634	108,865	1,128	-	-
1997	882,733	10,533	2,800	20,368	16,845	188,424	359,353	29,751	29,157	107,048	114,383	1,107	-	-
1998	914,973	11,176	2,981	21,401	17,633	196,258	377,897	30,972	29,550	107,439	115,641	1,087	-	-
1999	982,441	12,184	3,159	23,059	19,041	210,809	409,020	31,966	30,778	117,080	120,921	1,085	2,292	747
2000	1,076,577	13,922	3,366	24,658	20,085	224,928	440,759	34,057	33,828	144,789	131,333	1,190	2,515	834
2001	1,108,048	14,179	3,431	25,909	20,684	231,624	453,701	35,157	33,127	151,274	133,514	1,259	2,972	876
2002	1,152,905	16,457	3,701	27,082	21,169	241,448	477,763	36,559	34,343	150,594	138,193	1,254	3,033	951
2003	1,213,175	18,119	3,798	28,851	22,366	250,752	493,081	37,451	36,653	170,113	145,642	1,292	3,692	991
2004	1,290,906	19,407	3,983	29,853	23,672	262,761	516,106	39,748	40,796	189,743	157,675	1,394	4,320	1,074
2005	1,373,845	21,960	4,096	31,199	24,716	272,049	537,383	41,681	43,996	219,810	169,664	1,497	4,267	1,137
2006	1,450,405	26,064	4,315	31,644	25,847	282,505	560,576	45,173	45,604	238,886	182,251	1,634	4,282	1,226
2007	1,529,589	29,249	4,543	33,031	27,044	295,928	583,946	48,920	50,863	255,787	192,117	1,812	4,598	1,343
2008	1,603,418	30,785	4,687	34,519	27,499	304,479	587,055	51,575	65,649	288,700	199,441	2,026	5,005	1,565
2009	1,528,985	24,762	4,778	34,774	27,920	304,861	581,635	51,518	57,995	240,697	191,863	2,134	4,067	1,525
2010	1,624,608	28,192	5,010	36,352	29,448	319,348	612,494	54,257	63,557	263,537	203,147	2,330	4,696	1,755
2011	1,718,685	29,538	5,163	37,149	30,039	330,852	636,965	55,881	67,900	282,411	213,024	2,508	4,522	1,927
Compound Annual Growth Rates														
2000-2011	4.34	7.08	3.97	3.80	3.73	3.57	3.40	4.60	6.54	6.26	4.50	7.01	5.48	7.91
2000-2005	5.00	9.54	4.00	4.82	4.24	3.88	4.04	4.12	5.40	8.71	5.26	4.70	11.15	6.39
2005-2011	3.80	5.07	3.93	2.95	3.30	3.32	2.87	5.01	7.50	4.27	3.87	8.98	0.97	9.19

**Sources:** CANSIM table 384-0001 (all provinces and territories up to 2010) and CANSIM table 384-0016 for Canada (2011).

**Notes:** 2011 CSLS estimates for provinces and territories (*italicized*) developed using provincial real GDP growth rate in CANSIM table 379-0025 and the national GDP deflator (111.9 in 2011).

Provincial and territory GDP estimates for 2011 do not sum exactly to Canada GDP estimates in 2011.

Appendix Table 2b: GDP per Capita, Current Dollars, Canada, Provinces and Territories, 1981-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	14,523	8,959	8,636	9,323	8,983	12,294	14,873	13,157	15,143	23,304	15,874	19,891	-	-
1982	15,124	9,775	9,329	10,693	9,968	12,950	15,553	13,445	15,212	23,969	15,652	19,094	-	-
1983	16,218	10,339	10,839	11,936	11,256	13,908	17,112	14,254	15,949	24,397	16,329	18,594	-	-
1984	17,557	10,987	10,975	13,034	12,239	15,124	18,854	15,859	16,786	26,017	16,911	19,021	-	-
1985	18,795	11,475	11,323	13,990	12,959	16,111	20,348	17,123	17,490	27,775	17,996	19,815	-	-
1986	19,637	12,570	12,691	15,075	14,430	17,465	22,089	17,645	17,276	23,824	18,826	25,542	-	-
1987	21,135	13,495	13,503	16,150	15,901	18,938	23,945	18,559	17,617	24,610	20,506	34,194	-	-
1988	22,884	14,726	14,781	17,046	17,030	20,600	26,065	19,975	18,333	26,026	22,284	35,981	-	-
1989	24,113	15,601	15,820	18,041	17,858	21,434	27,594	21,172	19,596	26,969	23,644	37,582	-	-
1990	24,554	15,967	16,633	18,664	18,183	21,914	27,471	21,886	21,064	28,753	24,103	37,772	-	-
1991	24,445	16,539	17,297	19,290	18,304	21,954	27,139	21,655	21,335	28,119	24,260	33,078	-	-
1992	24,690	16,461	17,924	19,679	18,764	22,273	27,099	21,959	21,136	28,464	25,150	36,099	-	-
1993	25,351	16,847	18,695	19,853	19,622	22,669	27,447	22,002	22,771	30,435	26,369	29,073	-	-
1994	26,581	17,867	18,893	20,140	20,376	23,703	28,754	23,110	24,248	32,600	27,342	30,656	-	-
1995	27,657	18,773	19,804	20,790	21,813	24,564	30,074	23,882	26,055	33,657	27,974	34,393	-	-
1996	28,263	18,612	20,798	20,951	22,101	24,911	30,513	25,070	28,406	35,542	28,099	35,938	-	-
1997	29,517	19,119	20,574	21,845	22,385	25,902	32,006	26,186	28,644	37,828	28,968	34,815	-	-
1998	30,342	20,702	21,951	22,966	23,494	26,900	33,248	27,228	29,047	37,060	29,033	34,897	-	-
1999	32,316	22,845	23,180	24,694	25,368	28,786	35,552	27,980	30,337	39,652	30,145	35,244	56,400	27,852
2000	35,084	26,369	24,665	26,405	26,762	30,574	37,726	29,684	33,574	48,196	32,514	39,105	62,129	30,329
2001	35,722	27,161	25,106	27,786	27,586	31,316	38,137	30,533	33,120	49,468	32,754	41,750	72,765	31,137
2002	36,771	31,677	27,039	28,964	28,251	32,448	39,514	31,609	34,453	48,138	33,721	41,307	72,795	32,999
2003	38,343	34,944	27,678	30,775	29,846	33,497	40,277	32,179	36,782	53,438	35,329	41,727	86,746	33,799
2004	40,416	37,505	28,931	31,780	31,589	34,868	41,653	33,869	40,900	58,572	37,947	44,292	99,767	35,975
2005	42,606	42,694	29,669	33,263	33,045	35,881	42,893	35,374	44,280	66,164	40,427	46,922	98,320	37,490
2006	44,524	51,075	31,286	33,735	34,663	37,018	44,261	38,152	45,966	69,824	42,947	50,626	99,125	39,806
2007	46,450	57,761	32,882	35,297	36,276	38,495	45,646	40,987	50,850	72,818	44,579	55,636	105,592	42,946
2008	48,123	60,796	33,574	36,832	36,811	39,284	45,387	42,784	64,748	80,378	45,492	61,184	114,581	49,480
2009	45,331	48,662	33,834	36,982	37,228	38,950	44,492	42,256	56,343	65,555	43,019	63,355	93,199	47,301
2010	47,606	55,140	34,938	38,475	39,116	40,395	46,304	43,949	60,877	70,826	44,848	67,421	107,141	53,452
2011	49,842	57,853	35,400	39,293	39,763	41,462	47,631	44,684	64,185	74,725	46,580	72,357	103,527	57,827
Compound Annual Growth Rates														
2000-2011	3.24	7.40	3.34	3.68	3.67	2.81	2.14	3.79	6.07	4.07	3.32	5.75	4.75	6.04
2000-2005	3.96	10.12	3.76	4.73	4.31	3.25	2.60	3.57	5.69	6.54	4.45	3.71	9.61	4.33
2005-2011	2.65	5.19	2.99	2.82	3.13	2.44	1.76	3.97	6.38	2.05	2.39	7.49	0.86	7.49

Sources: Appendix Table 2a and Appendix Table 7a.

**Appendix Table 3: GNI and GNI per Capita, Market Prices, Canada, 1982-2011**

Year	GNI current \$ (millions)	GNI per capita current \$	Gross final domestic expenditure, implicit price index 2005=100	GNI 2005 constant dollars (millions)	GNI per capita 2005 constant dollars	GNI 2005 US\$ PPP adjusted (millions)	GNI 2005 US\$ PPP adjusted per capita
1982	366,610	14,596	56.7	646,488	25,739	532,684	21,208
1983	399,150	15,735	59.8	668,004	26,334	550,412	21,698
1984	435,410	17,004	62.0	701,865	27,409	578,312	22,584
1985	470,638	18,212	64.1	733,888	28,399	604,698	23,400
1986	495,095	18,969	66.5	744,413	28,521	613,370	23,501
1987	541,644	20,481	69.0	785,197	29,690	646,975	24,463
1988	593,293	22,145	71.6	828,089	30,908	682,316	25,467
1989	635,185	23,287	74.5	852,592	31,257	702,506	25,755
1990	655,477	23,671	77.4	847,363	30,601	698,198	25,214
1991	662,513	23,630	80.0	827,944	29,530	682,197	24,332
1992	675,083	23,795	81.4	828,869	29,215	682,959	24,072
1993	702,015	24,473	83.1	845,152	29,463	696,376	24,277
1994	742,879	25,616	84.1	883,219	30,455	727,742	25,094
1995	781,876	26,683	85.1	919,185	31,369	757,376	25,847
1996	808,534	27,306	86.0	940,010	31,746	774,535	26,158
1997	855,029	28,591	87.3	979,973	32,769	807,464	27,000
1998	884,553	29,333	88.3	1,001,794	33,221	825,443	27,373
1999	949,209	31,223	89.4	1,061,296	34,910	874,471	28,764
2000	1,048,545	34,170	91.4	1,146,744	37,371	944,877	30,792
2001	1,076,695	34,711	93.1	1,157,062	37,302	953,378	30,735
2002	1,124,037	35,850	95.1	1,181,363	37,679	973,401	31,046
2003	1,184,585	37,440	96.4	1,229,022	38,844	1,012,671	32,006
2004	1,264,600	39,592	98.0	1,290,383	40,399	1,063,230	33,288
2005	1,348,097	41,808	100.0	1,348,097	41,808	1,110,785	34,448
2006	1,436,166	44,087	102.4	1,402,798	43,062	1,155,856	35,482
2007	1,510,033	45,856	104.7	1,442,768	43,814	1,188,790	36,101
2008	1,583,160	47,515	107.0	1,479,023	44,390	1,218,663	36,576
2009	1,505,295	44,628	108.5	1,387,776	41,144	1,143,479	33,901
2010	1,596,394	46,779	109.8	1,453,908	42,604	1,197,969	35,104
2011	1,688,488	48,966	111.9	1,509,014	43,761	1,243,375	36,058
Compound Annual Growth Rates							
2000-2011	4.43	3.32	1.85	2.53	1.45	2.53	1.45
2000-2005	5.15	4.12	1.81	3.29	2.27	3.29	2.27
2005-2011	3.82	2.67	1.89	1.90	0.76	1.90	0.76

**Sources:** CANSIM Table 3800030, 3800062, PPP=1.213644 Canadian dollars per US dollar from OECD.

([http://stats.oecd.org/Index.aspx?datasetcode=SNA\\_TABLE4](http://stats.oecd.org/Index.aspx?datasetcode=SNA_TABLE4)), Appendix Table 7a.

**Appendix Table 4: Enrolment in Public Elementary and Secondary Schools, Canada, Provinces and Territories, 1996-2009**

Appendix Table 4a: Total Enrolment in September by Headcount in Public Elementary and Secondary Schools, Both Sexes, Canada, Provinces and Territories, 1996-2009

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1996	5,319,748	106,205	24,537	163,941	133,276	1,267,336	2,080,197	192,176	193,881	526,930	607,644	6,366	-	-
1997	5,354,706	101,768	24,397	162,359	131,586	1,260,513	2,095,630	194,798	196,013	532,301	631,445	6,333	-	-
1998	5,357,244	97,557	24,146	160,011	129,131	1,250,248	2,111,622	192,630	194,797	543,387	629,545	6,102	-	-
1999	5,372,733	94,118	24,089	158,205	127,003	1,247,757	2,131,626	197,067	192,885	546,402	628,269	5,975	9,753	9,584
2000	5,350,719	90,233	23,153	155,873	124,942	1,237,981	2,143,599	189,912	186,586	549,633	624,618	5,764	9,672	9,558
2001	5,360,375	86,971	22,843	153,450	122,792	1,244,689	2,163,108	188,907	183,024	548,122	622,829	5,608	9,707	8,738
2002	5,352,040	84,337	23,242	150,599	120,600	1,244,943	2,164,940	186,892	184,605	554,397	613,227	5,610	9,747	8,901
2003	5,293,261	81,511	22,905	148,514	118,869	1,240,820	2,129,742	186,287	182,128	552,592	605,536	5,520	9,718	9,119
2004	5,255,616	79,483	22,393	145,396	117,145	1,232,663	2,123,904	184,352	178,709	550,983	596,168	5,459	9,607	9,354
2005	5,213,462	76,806	21,948	142,304	114,820	1,215,927	2,118,544	182,371	175,588	551,740	589,379	5,335	9,571	9,129
2006	5,169,601	74,345	21,365	138,661	112,013	1,204,612	2,103,464	180,043	172,109	560,563	578,797	5,232	9,332	9,065
2007	5,116,762	72,109	20,813	135,303	110,288	1,188,888	2,087,588	179,320	168,622	559,118	571,415	5,227	9,048	9,023
2008	5,089,640	70,641	20,324	133,134	108,407	1,187,589	2,070,736	177,962	167,553	564,051	566,048	5,153	8,762	9,280
2009	5,077,021	69,665	19,955	130,550	106,394	1,189,790	2,061,390	177,500	168,194	567,979	562,902	5,100	8,564	9,038
Compound Annual Growth Rates														
2000-2009	-0.58	-2.83	-1.64	-1.95	-1.77	-0.44	-0.43	-0.75	-1.15	0.37	-1.15	-1.35	-1.34	-0.62
2000-2005	-0.52	-3.17	-1.06	-1.81	-1.68	-0.36	-0.23	-0.81	-1.21	0.08	-1.15	-1.53	-0.21	-0.91
2005-2009	-0.66	-2.41	-2.35	-2.13	-1.89	-0.54	-0.68	-0.67	-1.07	0.73	-1.14	-1.12	-2.74	-0.25

**Sources:** Statistics Canada, "Summary Public School Indicators for the Provinces and Territories," catalogue number 81-595-M, nos. 22, 44, 50, 67, 78, 83, 88, and 95.

**Notes:** Headcount enrolments are the number of students enrolled in a publicly-funded primary or secondary school in September of the indicated year (or as soon as possible thereafter). In some cases this includes adult high schools and kindergarten students.

Years refer to the year in which the school year began. For example, 2006 data refer to the 2006/2007 school year, which began in September 2006.

Data from 1996 to 1999 is obtained from an earlier publication of "Summary Public School Indicators for the Provinces and Territories" and, unlike the period 2000-2004, has not been updated in later publications.

Appendix Table 4b: Total Enrolment Rates in September by Headcount in Public Elementary and Secondary Schools, Proportion of the Population Aged 5-17, Both Sexes, Per Cent, Canada, Provinces and Territories, 1996-2009

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1996	101.6	99.9	93.5	100.5	100.7	103.5	107.6	90.4	93.2	96.5	91.8	99.9	-	-
1997	101.3	99.6	93.3	100.0	100.3	103.2	106.4	91.3	94.7	95.9	93.7	97.7	-	-
1998	100.7	99.7	93.0	99.4	99.9	102.9	105.4	90.2	94.6	96.4	92.8	96.3	-	-
1999	100.8	99.7	93.5	99.1	99.4	103.4	105.2	91.9	94.8	96.4	92.5	96.0	102.8	118.8
2000	100.1	99.0	90.9	98.6	99.2	103.1	104.2	88.3	93.2	96.4	92.1	94.8	102.8	115.6
2001	100.0	99.0	90.2	98.2	99.1	103.8	103.7	87.7	93.4	95.7	91.9	95.1	102.9	104.1
2002	99.7	99.3	93.1	97.7	99.2	104.0	102.7	86.9	96.0	96.1	91.5	97.2	102.9	104.0
2003	99.0	99.0	93.8	97.8	99.5	104.3	100.9	86.9	96.5	95.8	91.4	96.0	102.6	105.7
2004	98.9	99.4	93.6	97.5	99.7	104.3	100.8	86.1	96.5	95.7	90.7	96.1	102.1	108.1
2005	98.4	98.4	92.9	97.1	99.1	103.3	100.8	85.6	96.6	95.3	90.0	94.9	103.9	104.7
2006	98.2	98.1	91.9	96.6	98.7	102.9	100.7	85.0	96.5	96.1	89.0	95.3	104.3	104.5
2007	98.3	97.6	91.2	96.6	99.0	102.8	101.0	85.2	95.8	96.2	88.6	96.8	102.6	104.1
2008	99.0	98.1	90.1	97.8	99.3	104.6	101.3	85.3	96.2	97.6	88.7	96.1	102.2	107.2
2009	99.9	98.5	89.5	98.4	99.4	106.8	101.8	85.4	97.2	98.4	89.0	96.1	102.6	103.7
Compound Annual Growth Rates														
2000-2009	-0.02	-0.06	-0.18	-0.02	0.02	0.39	-0.25	-0.36	0.46	0.23	-0.37	0.16	-0.03	-1.20
2000-2005	-0.33	-0.14	0.44	-0.31	-0.03	0.04	-0.67	-0.61	0.72	-0.24	-0.44	0.04	0.21	-1.96
2005-2009	0.36	0.04	-0.94	0.34	0.08	0.84	0.26	-0.05	0.14	0.81	-0.28	0.31	-0.33	-0.23

Sources: Appendix Table 4a and Appendix Table 7a.

**Appendix Table 5: College Enrolment (Full-time and Part-time), Canada, Provinces and Territories, 1992-2009**

Appendix Table 5a: College Enrolment (Full-time and Part-time) in September, Both Sexes, Canada, Provinces and Territories, 1992-2009

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1992	469,806	4,830	924	3,297	3,207	191,643	130,257	5,670	4,251	45,774	78,492	570	885	-
1993	467,622	5,151	1,344	3,228	3,291	184,935	134,886	5,619	4,644	44,145	78,480	612	1,284	-
1994	470,769	6,177	1,197	3,003	3,603	184,608	138,786	5,289	3,936	44,112	77,811	639	1,614	-
1995	478,971	5,859	1,317	7,083	3,852	183,501	146,034	4,971	3,405	43,017	78,531	564	834	-
1996	484,389	5,811	1,419	7,242	4,977	177,867	152,037	5,742	2,946	44,769	80,244	654	678	-
1997	490,221	6,150	1,695	7,701	5,274	173,823	152,451	6,246	3,351	46,137	85,923	813	648	-
1998	494,955	6,444	1,974	7,365	5,364	173,427	152,583	6,693	2,829	49,836	86,781	714	942	-
1999	497,250	7,410	1,974	7,776	5,478	174,831	154,590	7,542	3,048	46,215	86,895	654	594	243
2000	545,211	4,032	1,368	6,924	5,274	203,850	154,338	8,052	4,320	48,048	107,580	621	591	216
2001	562,446	6,333	1,557	10,353	6,684	199,173	158,943	8,262	4,137	49,446	116,004	609	405	543
2002	573,822	7,860	1,800	7,950	6,270	195,507	170,190	8,463	3,852	53,073	117,381	540	522	420
2003	608,277	7,779	1,791	7,662	6,501	190,800	207,837	8,841	4,020	54,246	117,381	522	507	390
2004	608,352	6,558	1,275	7,677	8,040	189,159	203,967	8,733	3,840	61,011	116,601	501	531	459
2005	605,637	8,718	1,620	8,013	7,278	185,382	217,302	8,931	3,837	61,674	101,565	501	531	285
2006	611,823	8,991	1,557	8,547	7,008	188,055	216,414	9,051	6,825	61,770	102,570	201	531	297
2007	642,000	9,504	1,842	8,880	6,987	195,627	230,175	8,940	14,937	60,063	104,040	207	498	294
2008	629,853	9,690	2,487	9,420	7,092	202,299	239,463	8,871	15,660	62,982	70,995	210	447	237
2009	701,622	9,498	3,792	10,182	8,079	210,084	276,621	11,697	19,893	59,316	91,419	243	522	279
Compound Annual Growth Rates														
2000-2009	2.84	9.99	11.99	4.38	4.85	0.34	6.70	4.24	18.49	2.37	-1.79	-9.90	-1.37	2.88
2000-2005	2.12	16.68	3.44	2.96	6.65	-1.88	7.08	2.09	-2.34	5.12	-1.14	-4.20	-2.12	5.70
2005-2009	3.75	2.17	23.69	6.17	2.64	3.18	6.22	6.98	50.90	-0.97	-2.60	-16.55	-0.43	-0.53

**Sources:** CANSIM Table 477-0019.

**Notes:** Years refer to the year in which the school year began. For example, 2005 data refer to the 2005/2006 school year, which began in September 2005.

Appendix Table 5b: College Enrolment Rate, Proportion of the Total Population Aged 18-22, Both Sexes, Per Cent, Canada, Provinces and Territories, 1992-2009

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU	
1992	23.4	9.2	9.3	4.8	5.4	40.8	17.2	6.9	6.1	24.0	33.5	26.7	26.8	-	
1993	23.6	9.9	13.5	4.7	5.6	39.5	18.1	6.9	6.6	23.5	33.3	29.1	41.0	-	
1994	23.9	12.3	12.1	4.5	6.3	39.4	19.0	6.6	5.6	23.5	32.8	34.2	53.1	-	
1995	24.2	12.3	13.5	10.9	6.9	38.5	20.0	6.3	4.7	22.7	32.4	29.9	26.8	-	
1996	24.3	12.7	14.5	11.3	9.1	36.7	20.9	7.3	4.0	23.0	31.8	33.1	21.8	-	
1997	24.3	14.1	17.4	12.2	9.8	35.3	20.8	7.9	4.5	23.0	33.2	41.0	20.6	-	
1998	24.4	15.6	20.7	11.8	10.2	34.7	20.7	8.6	3.8	23.8	33.4	36.6	30.8	-	
1999	24.1	18.6	20.7	12.5	10.6	34.5	20.6	9.6	4.1	21.5	33.1	33.8	19.5	10.5	
2000	26.1	10.4	14.2	11.1	10.3	40.1	20.1	10.2	5.8	21.7	40.2	31.4	19.3	9.4	
2001	26.4	16.5	16.0	16.7	13.0	39.4	20.0	10.3	5.5	21.6	42.1	29.7	12.9	22.9	
2002	26.6	20.7	18.6	12.7	12.2	39.0	20.9	10.4	5.1	22.5	41.6	24.5	15.9	16.8	
2003	27.8	20.9	18.3	12.1	12.7	38.7	24.9	10.7	5.3	22.5	41.1	22.5	15.0	15.3	
2004	27.7	18.0	12.8	12.1	15.9	38.9	24.0	10.4	5.0	24.7	40.6	21.5	15.4	17.3	
2005	27.4	24.8	16.4	12.6	14.7	38.8	25.1	10.6	5.1	24.2	35.5	22.0	15.6	10.3	
2006	27.5	26.6	16.1	13.5	14.4	39.7	24.7	10.7	9.1	23.6	35.8	8.8	15.4	10.4	
2007	28.6	29.0	18.8	14.1	14.5	41.1	26.0	10.4	19.8	22.5	35.4	8.9	14.2	9.8	
2008	27.6	29.5	25.1	14.8	14.6	41.9	26.6	10.1	20.4	23.4	23.6	9.1	12.4	7.7	
2009	30.3	28.9	37.3	15.8	16.5	42.4	30.3	13.0	25.5	22.1	29.6	10.3	13.8	8.9	
Compound Annual Growth Rates															
2000-2009	1.65	12.06		11.33	3.93	5.42	0.62	4.68	2.80	17.87	0.20	-3.35	-11.69	-3.62	-0.66
2000-2005	0.98	19.10		2.90	2.52	7.47	-0.67	4.58	0.80	-2.68	2.22	-2.45	-6.90	-4.20	1.90
2005-2009	2.51	3.85		22.84	5.72	2.91	2.25	4.81	5.34	49.76	-2.25	-4.45	-17.34	-2.90	-3.76

Sources: Appendix Table 5a and 7c.

**Appendix Table 6: University Enrolment (Full-time and Part-time), Canada, Provinces and Nunavut, 1992-2011**

Appendix Table 6a: University Enrolment (Full-time and Part-time), Both Sexes, Canada, Provinces and Nunavut, 1992-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	NU
1992	885,645	17,856	3,636	37,881	24,822	257,472	339,048	37,587	32,895	68,271	66,171	-
1993	874,605	17,397	3,468	37,983	25,059	255,552	330,723	37,056	31,707	68,769	66,888	-
1994	858,972	17,169	3,132	37,245	24,783	248,421	324,387	35,769	31,248	67,434	69,381	-
1995	846,408	16,215	2,901	36,639	24,798	242,031	319,413	33,408	31,575	67,917	71,502	-
1996	829,767	16,053	2,739	36,834	23,628	235,692	306,834	32,055	31,320	70,032	74,580	-
1997	822,774	15,798	2,934	37,083	22,686	232,095	303,408	30,822	31,227	71,418	75,303	-
1998	826,362	15,711	2,886	37,242	22,767	232,278	302,943	30,735	31,278	73,773	76,749	-
1999	847,032	16,278	3,096	37,137	22,374	237,855	312,315	30,696	31,452	81,552	74,277	-
2000	851,781	16,140	3,366	38,823	23,649	233,652	320,112	31,938	32,637	76,341	75,126	4
2001	887,931	16,275	3,354	40,575	24,312	240,669	335,721	34,143	33,357	79,131	80,388	12
2002	936,390	16,908	3,561	41,892	24,654	250,806	362,736	35,172	34,254	83,448	82,959	5
2003	993,711	17,550	3,855	44,778	25,554	260,058	397,773	38,046	34,560	86,097	85,440	18
2004	1,021,500	18,048	3,972	43,539	24,903	263,379	413,406	39,285	33,126	89,124	92,724	10
2005	1,050,057	18,336	3,849	43,308	25,014	265,992	431,040	39,615	20,622	91,665	110,619	7
2006	1,066,764	17,811	3,999	42,459	23,757	266,709	440,607	40,119	20,604	94,149	116,550	9
2007	1,072,899	17,523	3,837	41,442	23,682	268,011	446,196	39,567	20,607	94,659	117,375	5
2008	1,114,701	17,322	4,089	40,890	23,004	269,091	448,470	42,081	19,971	93,774	156,012	8
2009	1,203,894	17,967	4,227	41,892	23,349	277,398	468,834	43,269	32,715	125,613	168,627	10
Compound Annual Growth Rates												
2000-2009	3.92	1.20	2.56	0.85	-0.14	1.93	4.33	3.43	0.03	5.69	9.40	10.72
2000-2005	4.27	2.58	2.72	2.21	1.13	2.63	6.13	4.40	-8.77	3.73	8.05	11.84
2005-2009	3.48	-0.51	2.37	-0.83	-1.71	1.06	2.12	2.23	12.23	8.20	11.12	9.33

**Sources:** Statistics Canada. Table 477-0019. Nunavut university data based on number of BEd graduates associated with Nunavut Arctic College, taken from correspondence with the College.

**Notes:** Years refer to the year in which the school year began. For example, 2006 data refer to the 2006/2007 school year, which began in September 2006.

Appendix Table 6b: University Enrolment Rate (Full-time and Part-time Enrolment), Proportion of the Total Population Aged 18-22, Both Sexes, Per Cent, Canada, Provinces and Nunavut, 1992-2009

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	NU
1992	44.2	33.9	36.7	54.6	42.1	54.8	44.7	45.9	47.2	35.8	28.2	-
1993	44.1	33.6	34.8	55.5	43.0	54.6	44.5	45.6	45.1	36.6	28.4	-
1994	43.7	34.3	31.7	55.9	43.4	53.0	44.3	44.5	44.2	36.0	29.2	-
1995	42.8	34.0	29.8	56.4	44.3	50.8	43.7	42.1	43.7	35.8	29.5	-
1996	41.6	35.2	28.0	57.4	43.0	48.7	42.1	40.5	42.5	36.0	29.5	-
1997	40.8	36.2	30.1	58.6	42.1	47.1	41.4	39.2	41.9	35.6	29.1	-
1998	40.7	38.0	30.3	59.5	43.4	46.5	41.0	39.5	41.8	35.3	29.5	-
1999	41.1	40.8	32.5	59.7	43.3	46.9	41.6	39.2	41.9	37.9	28.3	-
2000	40.8	41.4	34.9	62.5	46.1	46.0	41.7	40.4	43.8	34.5	28.1	0.2
2001	41.7	42.4	34.4	65.4	47.4	47.6	42.2	42.7	44.6	34.5	29.2	0.5
2002	43.3	44.6	36.9	66.8	48.0	50.0	44.5	43.4	45.4	35.3	29.4	0.2
2003	45.5	47.2	39.4	70.9	50.1	52.7	47.6	46.2	45.3	35.7	29.9	0.7
2004	46.4	49.5	39.9	68.7	49.4	54.2	48.6	47.0	43.1	36.1	32.3	0.4
2005	47.5	52.2	38.9	68.2	50.6	55.6	49.8	47.0	27.2	36.0	38.7	0.3
2006	48.0	52.7	41.3	67.3	48.9	56.3	50.3	47.4	27.6	36.0	40.7	0.3
2007	47.8	53.5	39.3	66.0	49.2	56.4	50.3	46.2	27.4	35.5	40.0	0.2
2008	48.9	52.7	41.2	64.3	47.5	55.8	49.9	48.1	26.0	34.9	51.8	0.3
2009	51.9	54.6	41.5	64.9	47.8	56.0	51.4	48.2	41.9	46.8	54.6	0.3
Compound Annual Growth Rates												
2000-2009	2.72	3.11	1.95	0.42	0.40	2.21	2.36	2.00	-0.50	3.46	7.67	6.91
2000-2005	3.10	4.71	2.18	1.77	1.90	3.89	3.65	3.08	-9.09	0.86	6.61	7.82
2005-2009	2.24	1.14	1.67	-1.25	-1.45	0.15	0.77	0.67	11.39	6.79	9.00	5.78

Sources: Appendix Table 7c and Appendix Table 6a.

**Appendix Table 7: Population, Canada, Provinces and Territories**

Appendix Table 7a: Population, Both Sexes, Canada, Provinces and Territories, 1981-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	24,819,915	575,302	123,551	854,871	706,438	6,547,207	8,812,286	1,035,545	975,759	2,291,104	2,826,558	23,880	-	-
1982	25,116,942	573,795	123,588	859,038	707,457	6,580,631	8,920,288	1,045,224	986,582	2,369,827	2,876,513	24,668	-	-
1983	25,366,451	579,164	125,102	868,289	714,842	6,602,976	9,039,564	1,059,752	1,001,249	2,393,587	2,907,502	23,664	-	-
1984	25,607,053	580,065	126,563	877,471	720,488	6,631,220	9,167,484	1,071,810	1,014,615	2,393,907	2,947,181	23,921	-	-
1985	25,842,116	579,275	127,619	885,848	723,287	6,665,802	9,294,657	1,082,495	1,024,928	2,404,490	2,975,131	24,375	-	-
1986	26,100,278	576,306	128,436	889,087	725,019	6,708,170	9,437,359	1,091,552	1,028,717	2,432,930	3,003,621	24,430	-	-
1987	26,446,601	575,242	128,641	893,606	727,768	6,781,984	9,637,945	1,098,373	1,032,799	2,440,877	3,048,651	25,706	-	-
1988	26,791,747	574,982	129,289	897,216	730,349	6,837,077	9,838,620	1,102,152	1,028,225	2,456,614	3,114,761	26,653	-	-
1989	27,276,781	576,551	130,153	903,841	735,129	6,925,128	10,103,305	1,103,792	1,019,439	2,498,325	3,196,725	27,167	-	-
1990	27,691,138	577,368	130,404	910,451	740,156	6,996,986	10,295,832	1,105,421	1,007,727	2,547,788	3,292,111	27,957	-	-
1991	28,037,420	579,644	130,369	914,969	745,567	7,067,396	10,431,316	1,109,604	1,002,713	2,592,306	3,373,787	28,871	38,724	22,154
1992	28,371,264	580,109	130,827	919,451	748,121	7,110,010	10,572,205	1,112,689	1,003,995	2,632,672	3,468,802	30,084	39,416	22,883
1993	28,684,764	579,977	132,177	923,925	748,812	7,156,537	10,690,038	1,117,618	1,006,900	2,667,292	3,567,772	30,337	39,820	23,559
1994	29,000,663	574,466	133,437	926,871	750,185	7,192,403	10,819,146	1,123,230	1,009,575	2,700,606	3,676,075	29,684	40,578	24,407
1995	29,302,311	567,397	134,415	928,120	750,943	7,219,219	10,950,119	1,129,150	1,014,187	2,734,519	3,777,390	30,442	41,432	24,978
1996	29,610,218	559,698	135,737	931,327	752,268	7,246,897	11,082,903	1,134,196	1,018,945	2,775,133	3,874,317	31,387	41,741	25,669
1997	29,905,948	550,911	136,095	932,402	752,511	7,274,611	11,227,651	1,136,128	1,017,902	2,829,848	3,948,583	31,797	41,625	25,884
1998	30,155,173	539,843	135,804	931,836	750,530	7,295,935	11,365,901	1,137,489	1,017,332	2,899,066	3,983,113	31,149	40,802	26,373
1999	30,401,286	533,329	136,281	933,784	750,601	7,323,250	11,504,759	1,142,448	1,014,524	2,952,692	4,011,375	30,785	40,638	26,820
2000	30,685,730	527,966	136,470	933,821	750,517	7,356,951	11,683,290	1,147,313	1,007,565	3,004,198	4,039,230	30,431	40,480	27,498
2001	31,019,020	522,033	136,663	932,454	749,801	7,396,331	11,896,663	1,151,439	1,000,221	3,058,017	4,076,264	30,156	40,844	28,134
2002	31,353,656	519,531	136,876	935,015	749,331	7,441,076	12,091,029	1,156,613	996,801	3,128,364	4,098,178	30,358	41,665	28,819
2003	31,639,670	518,520	137,221	937,491	749,389	7,485,838	12,242,273	1,163,819	996,483	3,183,396	4,122,396	30,963	42,561	29,320
2004	31,940,676	517,447	137,674	939,376	749,369	7,535,929	12,390,599	1,173,566	997,447	3,239,471	4,155,170	31,473	43,301	29,854
2005	32,245,209	514,363	138,055	937,941	747,960	7,581,911	12,528,480	1,178,301	993,579	3,322,200	4,196,788	31,904	43,399	30,328
2006	32,576,074	510,313	137,920	938,010	745,674	7,631,552	12,665,346	1,184,031	992,122	3,421,253	4,243,580	32,276	43,198	30,799
2007	32,929,733	506,379	138,161	935,794	745,515	7,687,423	12,792,937	1,193,558	1,000,257	3,512,691	4,309,632	32,569	43,545	31,272
2008	33,319,098	506,366	139,604	937,211	747,023	7,750,735	12,934,499	1,205,477	1,013,922	3,591,791	4,384,047	33,113	43,681	31,629
2009	33,729,690	508,862	141,219	940,293	749,983	7,826,891	13,072,727	1,219,183	1,029,325	3,671,699	4,459,947	33,683	43,638	32,240
2010	34,126,181	511,281	143,395	944,810	752,838	7,905,679	13,227,791	1,234,535	1,044,028	3,720,928	4,529,674	34,559	43,830	32,833
2011	34,482,779	510,578	145,855	945,437	755,455	7,979,663	13,372,996	1,250,574	1,057,884	3,779,353	4,573,321	34,666	43,675	33,322

Compound Annual Growth Rates

2000-2011	1.07	-0.30	0.61	0.11	0.06	0.74	1.24	0.79	0.44	2.11	1.14	1.19	0.69	1.76
2000-2005	1.00	-0.52	0.23	0.09	-0.07	0.60	1.41	0.53	-0.28	2.03	0.77	0.95	1.40	1.98
2005-2011	1.12	-0.12	0.92	0.13	0.17	0.86	1.09	1.00	1.05	2.17	1.44	1.39	0.11	1.58

Source: CANSIM table 015-0001.

Appendix Table 7b: Population Aged 5-17 (School Aged Population), Both Sexes, Canada, Provinces and Territories, 1981-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	5,111,600	158,816	28,785	189,384	165,174	1,297,441	1,791,448	219,002	214,399	480,664	547,356	5,403	-	-
1982	5,006,960	154,097	27,956	184,015	160,398	1,261,407	1,752,853	214,948	210,788	482,763	538,725	5,326	-	-
1983	4,906,618	150,823	27,343	179,338	156,682	1,228,210	1,718,074	212,043	208,695	476,866	530,127	4,826	-	-
1984	4,847,382	147,036	27,012	176,303	153,479	1,209,125	1,698,237	210,283	208,427	470,709	528,299	4,815	-	-
1985	4,826,565	143,678	26,774	174,284	151,015	1,203,898	1,691,518	209,738	209,460	469,307	527,862	4,928	-	-
1986	4,824,948	139,749	26,367	171,709	148,814	1,204,818	1,693,574	209,657	209,845	473,245	528,032	4,937	-	-
1987	4,836,497	136,222	26,127	169,954	147,165	1,209,234	1,706,345	209,382	209,866	472,953	530,209	5,119	-	-
1988	4,852,627	133,215	26,046	168,061	145,361	1,208,221	1,723,205	208,482	208,903	475,015	537,033	5,222	-	-
1989	4,883,130	130,173	26,015	165,995	143,569	1,211,455	1,742,873	207,198	207,300	482,218	546,950	5,346	-	-
1990	4,933,018	126,701	25,866	164,766	141,858	1,217,715	1,765,874	207,185	205,798	494,088	563,369	5,548	-	-
1991	4,984,705	123,370	25,823	163,844	140,389	1,225,980	1,788,077	207,756	205,605	506,455	577,046	5,648	8,427	6,285
1992	5,035,813	120,127	25,761	163,325	138,483	1,226,605	1,815,928	207,689	205,814	516,427	594,400	5,890	8,865	6,499
1993	5,068,521	116,877	25,762	162,646	136,308	1,221,949	1,835,467	207,641	206,171	523,514	610,461	5,867	9,080	6,778
1994	5,117,548	112,963	25,964	162,059	134,644	1,220,281	1,863,784	208,543	207,063	530,404	629,599	5,888	9,256	7,100
1995	5,177,683	109,947	26,147	162,710	133,358	1,220,355	1,897,592	210,828	207,962	538,836	647,020	6,168	9,411	7,349
1996	5,237,978	106,360	26,250	163,120	132,394	1,223,991	1,933,770	212,521	208,135	545,981	662,055	6,373	9,490	7,538
1997	5,285,553	102,180	26,143	162,343	131,215	1,221,290	1,969,136	213,366	206,951	554,986	674,183	6,481	9,542	7,737
1998	5,317,645	97,866	25,952	160,931	129,307	1,215,385	2,003,067	213,616	205,855	563,797	678,217	6,338	9,477	7,837
1999	5,328,911	94,430	25,774	159,647	127,760	1,206,467	2,027,220	214,520	203,450	566,943	678,921	6,227	9,488	8,064
2000	5,346,812	91,123	25,476	158,043	125,906	1,201,003	2,057,806	215,137	200,139	569,890	678,531	6,083	9,406	8,269
2001	5,362,981	87,830	25,317	156,333	123,845	1,199,243	2,085,406	215,397	195,984	572,528	677,378	5,896	9,429	8,395
2002	5,369,116	84,898	24,969	154,095	121,591	1,196,898	2,108,128	215,034	192,334	577,096	670,274	5,774	9,468	8,557
2003	5,345,510	82,308	24,408	151,782	119,510	1,189,912	2,111,051	214,432	188,652	576,911	662,694	5,748	9,471	8,631
2004	5,316,656	79,983	23,925	149,192	117,495	1,181,527	2,107,827	214,193	185,250	575,885	657,637	5,680	9,411	8,651
2005	5,296,233	78,092	23,626	146,548	115,891	1,177,367	2,102,752	212,996	181,743	579,058	654,610	5,619	9,210	8,721
2006	5,262,385	75,797	23,250	143,551	113,541	1,170,989	2,088,306	211,742	178,343	583,311	650,444	5,490	8,949	8,672
2007	5,207,528	73,854	22,819	140,066	111,405	1,156,238	2,067,909	210,516	176,062	580,968	644,807	5,398	8,818	8,668
2008	5,140,445	71,982	22,556	136,135	109,135	1,135,202	2,044,171	208,718	174,088	577,822	638,043	5,363	8,577	8,653
2009	5,084,206	70,714	22,307	132,649	107,028	1,114,302	2,024,690	207,755	173,111	577,113	632,167	5,306	8,351	8,713
2010	5,035,690	69,438	22,032	129,603	104,988	1,095,472	2,009,604	207,216	172,749	575,670	626,655	5,337	8,158	8,768
2011	5,002,696	68,227	21,867	126,512	103,106	1,082,660	1,997,128	207,849	172,980	578,902	621,485	5,263	7,964	8,753

Compound Annual Growth Rates

2000-2011	-0.60	-2.60	-1.38	-2.00	-1.80	-0.94	-0.27	-0.31	-1.32	0.14	-0.80	-1.31	-1.50	0.52
2000-2005	-0.19	-3.04	-1.50	-1.64	-0.40	0.43	-0.20	-1.91	0.32	-0.72	-1.57	-0.42	1.07	
2005-2011	-0.95	-2.23	-1.28	-2.42	-1.93	-1.39	-0.86	-0.41	-0.82	0.00	-0.86	-1.08	-2.39	0.06

Source: CANSIM table 051-0001.

Note: Values are computed by subtracting the 0-4 population from the 0 to 17 population.

Appendix Table 7c: Population Aged 18-22, Both Sexes, Canada, Provinces and Territories, 1989-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	2,488,600	56,111	11,856	84,652	69,913	670,114	862,648	99,461	94,179	263,426	268,845	2,385	-	-
1982	2,497,608	56,311	11,908	85,513	70,146	660,989	875,238	100,877	95,482	264,363	268,835	2,548	-	-
1983	2,478,539	57,901	12,264	86,770	71,168	648,639	881,089	102,140	96,578	251,875	262,057	2,374	-	-
1984	2,418,673	58,075	12,210	86,167	70,424	626,217	869,948	101,160	95,727	236,415	254,358	2,287	-	-
1985	2,337,271	57,309	12,054	83,943	68,259	601,198	848,132	98,222	92,609	224,322	243,437	2,152	-	-
1986	2,235,764	55,955	11,589	80,477	65,254	568,527	818,193	94,051	87,177	214,963	232,159	1,948	-	-
1987	2,134,378	54,946	10,902	76,008	62,077	537,130	787,183	89,276	82,134	202,057	225,289	1,957	-	-
1988	2,062,668	53,489	10,397	72,516	59,404	508,648	768,678	85,684	77,232	194,766	224,352	1,983	-	-
1989	2,054,060	53,038	10,168	71,842	58,550	495,594	775,979	84,133	73,684	194,757	228,663	2,025	-	-
1990	2,041,574	52,700	10,049	71,314	58,628	483,743	775,531	83,178	70,481	194,818	233,279	2,041	-	-
1991	2,022,757	53,220	9,957	70,448	59,137	476,970	767,786	82,546	69,360	192,881	232,557	2,124	3,555	2,216
1992	2,004,148	52,704	9,918	69,409	58,951	469,706	759,095	81,857	69,630	190,862	234,480	2,133	3,308	2,095
1993	1,981,833	51,834	9,971	68,425	58,312	467,692	743,204	81,175	70,243	188,117	235,569	2,100	3,135	2,056
1994	1,967,355	50,064	9,882	66,686	57,111	468,630	732,337	80,299	70,694	187,434	237,240	1,866	3,038	2,074
1995	1,975,805	47,667	9,747	64,908	55,971	476,407	730,320	79,329	72,233	189,806	242,298	1,884	3,108	2,127
1996	1,995,065	45,614	9,791	64,172	54,972	484,019	729,107	79,166	73,691	194,528	252,690	1,975	3,112	2,228
1997	2,016,042	43,626	9,746	63,328	53,877	492,681	733,390	78,592	74,534	200,401	258,481	1,984	3,153	2,249
1998	2,032,583	41,318	9,520	62,588	52,421	499,638	738,197	77,895	74,858	208,974	259,855	1,949	3,058	2,312
1999	2,059,256	39,945	9,522	62,211	51,711	507,104	750,325	78,221	75,050	215,140	262,726	1,936	3,044	2,321
2000	2,088,329	38,949	9,644	62,153	51,318	508,244	768,501	79,133	74,434	221,264	267,348	1,977	3,064	2,300
2001	2,128,869	38,392	9,736	62,083	51,337	505,260	794,756	79,894	74,798	229,332	275,712	2,051	3,151	2,367
2002	2,160,990	37,881	9,653	62,670	51,386	501,115	815,453	80,986	75,496	236,136	282,239	2,202	3,277	2,496
2003	2,184,178	37,146	9,790	63,177	51,009	493,568	835,732	82,265	76,334	241,032	285,857	2,324	3,389	2,555
2004	2,199,812	36,487	9,959	63,410	50,450	485,817	850,992	83,580	76,881	246,811	287,001	2,328	3,441	2,655
2005	2,209,815	35,147	9,900	63,499	49,393	478,093	864,967	84,330	75,733	254,521	285,778	2,280	3,412	2,762
2006	2,220,839	33,817	9,690	63,086	48,558	474,089	875,192	84,692	74,672	261,744	286,701	2,273	3,457	2,868
2007	2,245,586	32,783	9,772	62,827	48,134	475,488	886,411	85,647	75,325	266,731	293,668	2,313	3,500	2,987
2008	2,279,424	32,856	9,921	63,546	48,429	482,610	899,272	87,430	76,820	268,601	300,924	2,315	3,619	3,081
2009	2,318,436	32,919	10,177	64,582	48,882	495,647	912,443	89,683	78,050	268,173	308,586	2,369	3,773	3,152
2010	2,354,302	33,019	10,708	65,214	49,480	511,049	925,907	91,421	78,351	264,327	315,425	2,447	3,828	3,126
2011	2,376,933	32,113	10,966	64,954	49,464	522,497	937,380	92,473	78,031	263,749	316,083	2,335	3,837	3,051

## Compound Annual Growth Rates

2000-2011	1.18	-1.74	1.17	0.40	-0.33	0.25	1.82	1.43	0.43	1.61	1.53	1.52	2.07	2.60
2000-2005	1.14	-2.03	0.53	0.43	-0.76	-1.22	2.39	1.28	0.35	2.84	1.34	2.89	2.17	3.73
2005-2011	1.22	-1.49	1.72	0.38	0.02	1.49	1.35	1.55	0.50	0.60	1.69	0.40	1.98	1.67

**Source:** CANSIM table 051-0001.**Note:** Values are computed by adding the 18, 19, 20, 21 and 22 year old population estimates.

Appendix Table 7d: Population Aged 25 and Over, Both Sexes, Canada, Provinces and Territories, 1989-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	14,440,952	290,239	69,190	488,592	391,345	3,835,024	5,230,705	602,263	549,635	1,243,884	1,706,116	12,925	-	-
1982	14,804,225	294,999	70,203	497,667	398,597	3,915,633	5,352,668	613,547	561,115	1,306,624	1,757,635	13,372	-	-
1983	15,144,969	302,149	71,743	508,784	408,282	3,990,465	5,481,046	626,904	573,499	1,345,584	1,800,456	13,072	-	-
1984	15,481,564	307,524	73,271	519,977	417,477	4,068,177	5,617,409	639,179	585,877	1,369,386	1,845,651	13,462	-	-
1985	15,820,562	312,507	74,667	531,784	425,563	4,149,860	5,755,865	651,949	597,176	1,396,579	1,885,372	13,893	-	-
1986	16,182,220	316,573	76,205	541,263	433,188	4,238,069	5,909,731	664,367	605,639	1,430,969	1,925,949	14,230	-	-
1987	16,600,728	321,716	77,223	551,988	441,479	4,344,179	6,102,116	675,545	615,172	1,455,406	1,974,095	15,269	-	-
1988	17,016,015	327,213	78,594	562,102	449,810	4,438,056	6,292,540	684,983	621,055	1,483,837	2,034,690	16,108	-	-
1989	17,498,890	333,618	79,997	573,318	458,840	4,545,084	6,521,214	692,155	623,111	1,523,464	2,103,536	16,545	-	-
1990	17,902,486	339,733	80,932	583,424	467,346	4,631,866	6,693,200	697,832	621,968	1,563,738	2,176,260	17,114	-	-
1991	18,228,512	346,000	81,405	591,176	474,701	4,700,617	6,818,698	703,581	622,268	1,600,042	2,242,045	17,766	20,962	9,251
1992	18,504,236	350,932	82,099	598,236	480,143	4,745,511	6,927,492	707,218	624,415	1,631,173	2,307,286	18,488	21,415	9,828
1993	18,781,114	355,850	83,302	604,688	484,292	4,791,043	7,031,851	712,229	627,290	1,661,501	2,378,194	18,727	21,869	10,278
1994	19,058,771	357,758	84,457	610,515	488,619	4,828,757	7,139,057	717,599	630,066	1,691,394	2,458,736	18,489	22,550	10,774
1995	19,338,131	358,772	85,586	615,297	492,849	4,863,186	7,251,107	723,448	633,976	1,722,003	2,538,621	19,004	23,245	11,037
1996	19,613,557	359,671	86,902	621,071	498,138	4,896,682	7,363,262	729,090	638,002	1,755,478	2,610,610	19,735	23,521	11,395
1997	19,892,976	359,679	87,882	626,662	502,810	4,933,924	7,486,172	733,522	639,653	1,796,989	2,670,328	20,177	23,625	11,553
1998	20,131,473	357,796	88,477	630,953	506,147	4,964,935	7,596,698	737,355	641,893	1,845,361	2,706,673	19,950	23,377	11,858
1999	20,368,984	357,618	89,466	636,370	509,953	5,004,452	7,706,705	742,381	642,744	1,887,015	2,737,011	19,797	23,351	12,121
2000	20,638,088	357,877	90,063	639,584	513,423	5,053,049	7,842,098	747,579	641,705	1,929,486	2,767,645	19,715	23,357	12,507
2001	20,941,163	357,361	90,710	642,476	516,409	5,107,925	8,000,017	752,429	640,427	1,973,780	2,803,305	19,734	23,669	12,921
2002	21,257,947	358,958	91,502	648,156	519,609	5,164,550	8,159,180	758,173	641,113	2,028,567	2,830,483	19,952	24,383	13,321
2003	21,540,925	361,635	92,331	652,729	522,734	5,221,728	8,288,921	765,100	643,860	2,074,339	2,858,454	20,401	25,065	13,628
2004	21,834,746	363,801	93,248	657,510	525,397	5,282,357	8,417,904	773,213	647,310	2,120,022	2,893,438	20,872	25,697	13,977
2005	22,138,507	365,024	94,157	660,426	527,926	5,343,528	8,540,406	778,565	649,022	2,182,278	2,935,500	21,366	25,978	14,331
2006	22,460,916	365,399	94,850	664,666	529,835	5,405,820	8,663,849	784,719	652,000	2,255,045	2,982,100	21,865	26,088	14,680
2007	22,800,234	364,745	95,433	665,983	532,283	5,467,437	8,788,738	792,608	659,763	2,328,376	3,041,179	22,180	26,524	14,985
2008	23,164,907	366,225	96,784	669,744	535,531	5,530,322	8,926,275	802,186	670,519	2,395,908	3,106,765	22,686	26,744	15,218
2009	23,541,875	369,418	98,112	674,281	539,638	5,599,704	9,061,024	812,607	682,434	2,465,943	3,173,078	23,192	26,819	15,625
2010	23,907,622	372,566	99,862	679,752	543,313	5,672,865	9,206,874	823,909	693,746	2,513,243	3,234,371	23,893	27,111	16,117
2011	24,239,261	373,727	101,977	682,828	547,257	5,740,083	9,343,718	835,445	704,695	2,562,356	3,279,358	24,133	27,113	16,571

Compound Annual Growth Rates

2000-2011	1.47	0.39	1.14	0.60	0.58	1.17	1.61	1.02	0.85	2.61	1.55	1.86	1.36	2.59
2000-2005	1.41	0.40	0.89	0.64	0.56	1.12	1.72	0.82	0.23	2.49	1.18	1.62	2.15	2.76
2005-2011	1.52	0.39	1.34	0.56	0.60	1.20	1.51	1.18	1.38	2.71	1.86	2.05	0.72	2.45

Source: CANSIM table 051-0001.

Note: Values are computed by subtracting the 18-24 population from the 18 and over population.

Appendix Table 7e: Population Aged 18-29 (University-aged Population), Both Sexes, Canada, Provinces and Territories, 1989-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	5,714,968	127,003	25,564	188,484	157,977	1,543,912	1,953,033	225,062	212,461	624,164	638,842	6,349	-	-
1982	5,806,360	126,618	25,637	190,831	158,463	1,549,612	1,993,357	229,136	217,123	648,200	647,818	6,651	-	-
1983	5,853,092	129,496	26,573	195,465	161,593	1,548,928	2,030,359	234,697	222,376	640,156	643,943	6,179	-	-
1984	5,842,353	129,789	27,134	198,160	162,188	1,534,672	2,052,325	236,735	224,196	618,552	638,868	6,077	-	-
1985	5,787,200	128,526	27,185	198,670	160,329	1,510,578	2,057,477	236,576	222,605	599,612	625,799	5,893	-	-
1986	5,730,389	125,950	26,973	196,585	157,654	1,483,919	2,064,808	235,259	218,044	588,219	613,520	5,592	-	-
1987	5,668,325	124,675	26,333	192,867	154,330	1,455,802	2,076,113	231,384	213,081	566,250	607,900	5,718	-	-
1988	5,603,449	123,298	25,794	189,002	151,314	1,419,299	2,086,413	227,032	205,265	548,350	607,761	5,788	-	-
1989	5,591,484	123,003	25,316	187,102	149,739	1,394,808	2,122,616	221,857	195,140	539,630	612,248	5,610	-	-
1990	5,507,585	122,027	24,630	183,748	147,781	1,354,819	2,109,353	215,190	183,269	530,120	616,269	5,597	-	-
1991	5,373,964	122,004	23,922	178,919	145,940	1,310,938	2,058,644	209,014	174,849	517,017	612,051	5,748	9,442	5,476
1992	5,269,758	120,778	23,404	174,060	143,223	1,270,341	2,019,980	203,613	170,457	506,301	617,100	5,830	9,064	5,607
1993	5,158,339	118,989	23,178	169,572	139,651	1,236,965	1,966,659	199,252	166,695	494,554	622,694	5,679	8,878	5,573
1994	5,062,858	115,071	22,846	164,429	136,535	1,206,332	1,922,804	195,250	163,825	486,326	630,037	5,121	8,671	5,611
1995	4,982,285	109,960	22,506	158,863	133,212	1,180,144	1,884,043	191,733	163,438	481,674	637,361	5,131	8,660	5,560
1996	4,949,570	104,800	22,598	155,860	130,714	1,165,715	1,854,729	190,196	165,002	485,582	654,830	5,451	8,435	5,658
1997	4,940,403	99,785	22,419	152,892	128,471	1,160,652	1,848,049	188,347	165,192	494,657	660,583	5,373	8,347	5,636
1998	4,939,517	94,019	21,866	150,385	125,726	1,162,789	1,846,468	186,903	165,341	512,129	655,074	5,132	8,029	5,656
1999	4,959,788	90,183	21,679	149,081	124,128	1,170,858	1,856,273	187,068	165,239	525,345	651,477	4,953	7,831	5,673
2000	4,984,069	86,790	21,462	147,264	122,537	1,175,987	1,877,133	186,945	163,943	536,188	647,709	4,788	7,663	5,660
2001	5,028,910	83,961	21,195	144,693	120,791	1,181,113	1,910,296	187,007	163,234	548,508	649,971	4,667	7,694	5,780
2002	5,084,086	82,457	21,083	143,928	119,216	1,189,953	1,939,851	187,548	163,821	564,920	652,773	4,782	7,866	5,888
2003	5,142,381	81,421	21,242	144,284	118,032	1,199,547	1,970,430	189,452	165,423	577,335	656,091	4,992	8,119	6,013
2004	5,205,807	80,408	21,434	144,566	117,067	1,208,318	2,000,850	192,037	167,877	591,355	662,159	5,145	8,405	6,186
2005	5,250,745	77,960	21,431	143,662	115,203	1,206,690	2,024,296	192,947	167,166	612,107	669,259	5,152	8,497	6,375
2006	5,303,428	75,477	21,188	142,539	113,231	1,205,675	2,048,896	193,933	166,745	636,960	678,495	5,156	8,523	6,610
2007	5,390,480	73,547	21,049	141,815	111,979	1,209,138	2,084,298	197,324	169,667	663,238	697,739	5,233	8,701	6,752
2008	5,496,962	73,661	21,240	142,876	112,200	1,217,624	2,127,434	201,738	174,451	683,358	721,375	5,334	8,835	6,836
2009	5,606,537	74,004	21,561	144,866	113,025	1,231,599	2,167,964	206,533	179,355	700,113	746,096	5,485	8,930	7,006
2010	5,691,162	74,316	22,213	146,923	113,519	1,240,703	2,210,963	211,095	182,591	700,216	766,811	5,754	9,026	7,032
2011	5,738,899	73,359	22,601	147,338	113,614	1,244,481	2,243,537	214,303	184,936	700,891	772,131	5,661	8,978	7,069
Compound Annual Growth Rates														
2000-2011	1.29	-1.52	0.47	0.00	-0.68	0.52	1.63	1.25	1.10	2.47	1.61	1.53	1.45	2.04
2000-2005	1.05	-2.12	-0.03	-0.49	-1.23	0.52	1.52	0.63	0.39	2.68	0.66	1.48	2.09	2.41
2005-2011	1.49	-1.01	0.89	0.42	-0.23	0.52	1.73	1.76	1.70	2.28	2.41	1.58	0.92	1.74

**Source:** CANSIM table 051-0001.**Note:** Values are computed by adding the 18-24 population to the 25-29 population.

## Appendix 2: CSLS Estimates of HDI and its Components

**Appendix Table 8: Estimated Average Educational Attainment Using LFS data, Canada, Provinces and Territories, 1990-2011**

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	11.3	10.7	10.7	11.2	10.9	10.9	11.4	11.0	11.0	11.6	11.7	-	-	-
1991	11.3	10.8	10.8	11.2	10.9	11.0	11.4	11.1	11.0	11.7	11.7	-	-	-
1992	11.4	10.9	11.0	11.3	11.0	11.1	11.5	11.1	11.1	11.8	11.8	12.0	-	-
1993	11.5	11.0	11.2	11.3	11.1	11.2	11.6	11.2	11.2	11.9	11.9	12.0	-	-
1994	11.6	11.0	11.2	11.4	11.2	11.2	11.7	11.2	11.3	11.9	12.0	12.0	-	-
1995	11.6	11.1	11.3	11.4	11.3	11.3	11.7	11.4	11.3	11.9	12.0	12.2	-	-
1996	11.7	11.1	11.3	11.5	11.3	11.4	11.8	11.5	11.4	12.0	12.1	12.3	-	-
1997	11.8	11.2	11.3	11.6	11.4	11.5	11.9	11.5	11.4	12.1	12.1	12.2	-	-
1998	11.8	11.3	11.4	11.7	11.5	11.6	11.9	11.6	11.6	12.2	12.1	12.3	-	-
1999	11.9	11.3	11.5	11.8	11.6	11.6	12.0	11.7	11.6	12.2	12.2	12.4	-	-
2000	11.9	11.4	11.5	11.8	11.6	11.6	12.1	11.7	11.7	12.2	12.2	12.2	12.2	10.7
2001	12.0	11.5	11.7	11.9	11.7	11.7	12.1	11.8	11.7	12.3	12.3	12.6	12.2	10.7
2002	12.1	11.6	11.8	11.9	11.7	11.8	12.2	11.8	11.8	12.3	12.3	12.6	11.9	10.7
2003	12.1	11.7	11.9	12.0	11.8	11.9	12.3	11.9	11.9	12.3	12.3	12.5	11.9	10.7
2004	12.2	11.7	11.9	12.1	11.9	11.9	12.3	11.9	11.9	12.3	12.4	12.6	12.0	10.7
2005	12.2	11.8	12.0	12.1	11.9	12.0	12.3	12.0	12.0	12.4	12.4	12.5	11.9	10.3
2006	12.3	11.8	12.0	12.1	12.0	12.1	12.4	12.0	12.0	12.4	12.4	12.2	12.1	10.9
2007	12.3	11.8	12.0	12.2	12.0	12.2	12.5	12.0	12.1	12.5	12.5	12.4	12.2	11.2
2008	12.4	11.9	12.0	12.2	12.1	12.2	12.5	12.1	12.1	12.5	12.5	12.4	12.0	11.0
2009	12.4	11.9	12.1	12.2	12.1	12.2	12.5	12.2	12.2	12.6	12.6	12.3	11.9	10.9
2010	12.5	12.1	12.2	12.4	12.1	12.3	12.6	12.3	12.3	12.6	12.6	12.2	11.9	10.8
2011	12.5	12.1	12.3	12.4	12.1	12.3	12.6	12.3	12.3	12.6	12.7	12.5	12.2	10.9
Compound Annual Growth Rates														
2000-2011	0.43	0.54	0.58	0.41	0.41	0.54	0.40	0.41	0.47	0.32	0.35	0.25	0.00	0.20
2000-2005	0.50	0.64	0.86	0.49	0.54	0.66	0.46	0.43	0.56	0.42	0.33	0.53	-0.39	-0.77
2005-2011	0.37	0.46	0.34	0.34	0.31	0.43	0.35	0.40	0.39	0.23	0.36	0.02	0.33	1.02

**Sources:** LFS data from CANSIM Table 2820004 for provinces, unpublished Yukon, Northwest Territories, and Nunavut data obtained from LFS by special request from Statistics Canada.

**Notes:** LFS data is not available for Nunavut before 2004. Since there is no clear pattern in the yearly growth rates, estimates for 2000-2003 (italicized) are assumed to be equal to the 2004 estimate. Average educational attainment for Northwest Territories (2000) was estimated in the same manner.

CSLS allocates 8 years for those with at most primary, 12 years for those with at most secondary and 14 years for those with tertiary schooling.

**Appendix Table 9: Expected Years of Schooling, Canada, Provinces and Territories**

Appendix Table 9a: Expected Years of Schooling Using LFS data, Canada, Provinces and Territories, 1990-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT*	NWT*	NU
1990	14.8	14.4	14.3	14.8	14.2	14.9	15.2	14.5	14.5	14.5	14.3	-	-	-
1991	15.1	14.4	14.5	15.0	14.5	15.3	15.5	14.6	14.7	14.5	14.7	-	-	-
1992	15.4	14.8	14.9	15.1	14.6	15.6	15.8	14.9	14.9	14.7	14.9	14.5	-	-
1993	15.5	14.9	15.2	15.3	14.8	15.8	15.9	14.9	14.8	15.0	14.8	14.2	-	-
1994	15.5	15.2	14.9	15.2	14.9	15.7	16.0	14.8	14.7	14.9	15.0	14.9	-	-
1995	15.6	15.3	14.9	15.2	14.8	15.7	16.1	14.8	14.8	14.8	15.1	14.2	-	-
1996	15.6	15.4	14.9	15.4	14.8	15.8	16.0	14.8	14.7	14.9	15.2	14.4	-	-
1997	15.7	15.9	14.8	15.4	15.0	16.0	16.1	14.9	14.8	15.1	15.5	15.0	-	-
1998	15.7	15.8	15.4	15.5	14.8	15.9	16.0	14.9	15.0	15.0	15.6	14.7	-	-
1999	15.6	15.8	14.9	15.4	14.8	15.7	16.0	15.0	15.0	15.0	15.6	14.5	-	-
2000	15.6	15.7	15.1	15.7	14.9	15.7	15.9	15.0	15.1	14.8	15.6	13.9	14.5	13.1
2001	15.7	15.5	15.2	15.4	14.9	15.9	16.0	15.2	15.3	15.1	15.7	14.1	14.5	13.1
2002	15.7	15.8	15.2	15.4	14.9	15.9	16.0	15.3	15.3	15.1	15.8	14.6	14.5	13.1
2003	15.7	15.5	15.4	15.7	15.2	15.9	15.9	15.5	15.2	15.1	15.9	14.4	14.3	13.1
2004	15.8	15.6	15.3	15.8	15.3	15.9	16.0	15.5	15.1	15.0	15.8	14.5	14.4	13.1
2005	15.9	15.7	15.3	15.6	15.3	16.1	16.2	15.4	15.1	14.9	15.7	13.8	14.1	13.3
2006	15.8	15.9	15.3	15.7	15.3	16.2	16.1	15.5	15.1	14.9	15.7	14.4	14.2	13.5
2007	15.8	15.9	15.4	15.6	15.5	16.2	16.2	15.3	14.9	14.7	15.6	14.2	14.2	13.0
2008	15.8	15.8	15.5	15.3	15.3	16.1	16.1	15.3	14.9	14.7	15.6	13.0	13.8	12.9
2009	15.8	15.7	15.4	15.4	15.2	16.2	16.2	15.3	14.8	14.8	15.7	13.1	14.5	13.6
2010	16.0	15.6	15.6	15.6	15.3	16.3	16.3	15.4	15.0	15.1	15.8	13.8	14.1	13.2
2011	16.0	15.6	15.5	15.8	15.4	16.4	16.2	15.3	15.0	15.0	15.9	14.3	14.6	12.8
Compound Annual Growth Rates														
2000-2011	0.22	-0.08	0.24	0.04	0.28	0.40	0.22	0.22	-0.03	0.09	0.17	0.26	0.09	-0.22
2000-2005	0.34	0.05	0.25	-0.16	0.58	0.46	0.45	0.62	0.08	0.11	0.04	-0.10	-0.57	0.29
2005-2011	0.13	-0.18	0.22	0.20	0.04	0.35	0.02	-0.11	-0.12	0.08	0.29	0.56	0.65	-0.65

**Sources:** CSLS calculations use CANSIM Table 2820095 for Canada and provinces.

**Notes:** LFS data is not available for Nunavut before 2004. Since there is no clear pattern in the yearly growth rates, estimates for 2000-2003

(italicized) are assumed to be equal to the 2004 estimate. Average educational attainment for Northwest Territories (2000) was estimated in the same manner.

Appendix Table 9b: Expected Years of Schooling Using Administrative Data, Canada, Provinces and Territories, 1996-2009

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT*	NWT*	NU
1996	15.4	14.6	13.6	15.6	15.0	16.1	16.1	13.5	13.9	14.4	13.7	-	-	-
1997	15.3	14.7	13.7	15.6	14.9	16.0	15.9	13.6	14.1	14.4	14.0	-	-	-
1998	15.2	14.8	13.7	15.5	14.9	15.9	15.8	13.5	14.0	14.4	13.9	-	-	-
1999	15.2	15.0	13.9	15.5	14.9	16.0	15.7	13.7	14.1	14.5	13.8	-	13.8	15.7
2000	15.2	14.7	13.5	15.5	14.9	16.0	15.6	13.3	14.0	14.4	13.9	13.0	13.8	15.2
2001	15.2	14.9	13.4	15.7	15.0	16.2	15.6	13.3	14.0	14.3	14.0	13.0	13.6	14.0
2002	15.2	15.1	13.9	15.6	15.1	16.3	15.5	13.2	14.4	14.4	13.9	13.1	13.7	13.9
2003	15.2	15.2	14.1	15.8	15.2	16.4	15.5	13.4	14.5	14.3	13.9	13.0	13.6	14.0
2004	15.3	15.3	14.0	15.7	15.3	16.5	15.5	13.3	14.4	14.4	13.9	12.9	13.6	14.4
2005	15.2	15.4	14.0	15.6	15.2	16.4	15.6	13.2	13.8	14.3	14.0	12.8	12.8	13.8
2006	15.2	15.4	13.9	15.5	15.1	16.4	15.6	13.2	13.8	14.4	13.9	12.6	13.9	13.8
2007	15.3	15.4	13.8	15.5	15.1	16.4	15.7	13.1	13.9	14.4	13.8	12.8	13.6	13.7
2008	15.4	15.5	13.9	15.6	15.1	16.7	15.7	13.2	14.0	14.6	14.1	12.7	13.5	14.1
2009	15.7	15.6	14.0	15.7	15.2	17.0	15.9	13.3	14.8	15.1	14.4	12.7	13.6	13.7
Compound Annual Growth Rates														
2000-2009	0.36	0.61	0.44	0.11	0.16	0.63	0.20	0.00	0.64	0.57	0.36	-0.21	-0.12	-1.19
2000-2005	0.11	0.84	0.68	0.08	0.33	0.48	-0.02	-0.11	-0.34	-0.06	0.10	-0.25	0.10	-1.91
2005-2009	0.68	0.32	0.14	0.16	-0.06	0.81	0.48	0.14	1.89	1.37	0.69	-0.16	-0.39	-0.28

**Sources:** Appendix tables 4, 5, and 6.

**Appendix Table 10: GNI, Canada, Provinces and Territories, 1981-2011**

Appendix Table 10a: GNI, Millions of Current Dollars, Canada, Provinces and Territories, 1981-2011

Year	Canada	Canada GNI/GDP	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	348,335	0.966	4,980	1,031	7,702	6,132	77,784	126,651	13,166	14,279	51,593	43,358	459	-	-
1982	366,610	0.965	5,413	1,113	8,866	6,806	82,246	133,902	13,563	14,485	54,822	43,454	455	-	-
1983	399,150	0.970	5,810	1,316	10,056	7,807	89,101	150,081	14,657	15,494	56,660	46,065	427	-	-
1984	435,410	0.968	6,172	1,345	11,076	8,540	97,131	167,394	16,462	16,494	60,319	48,269	441	-	-
1985	470,638	0.969	6,441	1,400	12,008	9,082	104,058	183,255	17,961	17,370	64,712	51,878	468	-	-
1986	495,095	0.966	6,997	1,575	12,947	10,106	113,168	201,364	18,604	17,167	55,988	54,622	603	-	-
1987	541,644	0.969	7,523	1,683	13,985	11,214	124,462	223,633	19,754	17,632	58,210	60,580	852	-	-
1988	593,293	0.968	8,194	1,849	14,800	12,036	136,296	248,159	21,305	18,241	61,871	67,166	928	-	-
1989	635,185	0.966	8,687	1,988	15,747	12,678	143,344	269,236	22,569	19,292	65,068	72,991	986	-	-
1990	655,477	0.964	8,888	2,091	16,382	12,974	147,818	272,666	23,323	20,464	70,623	76,497	1,018	-	-
1991	662,513	0.967	9,267	2,180	17,061	13,192	149,982	273,654	23,228	20,680	70,461	79,120	923	-	-
1992	675,083	0.964	9,203	2,260	17,438	13,529	152,620	276,106	23,548	20,451	72,219	84,079	1,047	-	-
1993	702,015	0.965	9,433	2,385	17,708	14,184	156,614	283,250	23,739	22,134	78,369	90,821	851	-	-
1994	742,879	0.964	9,891	2,429	17,989	14,731	164,287	299,799	25,015	23,591	84,844	96,862	877	-	-
1995	781,876	0.965	10,277	2,568	18,616	15,803	171,084	317,716	26,016	25,494	88,794	101,947	1,010	-	-
1996	808,534	0.966	10,064	2,727	18,851	16,063	174,415	326,725	27,471	27,964	95,295	105,180	1,090	-	-
1997	855,029	0.969	10,202	2,712	19,729	16,316	182,510	348,075	28,817	28,242	103,688	110,793	1,072	-	-
1998	884,553	0.967	10,804	2,882	20,689	17,047	189,733	365,333	29,942	28,568	103,867	111,796	1,051	-	-
1999	949,209	0.966	11,772	3,052	22,279	18,397	203,678	395,185	30,885	29,737	113,120	116,831	1,048	2,214	722
2000	1,048,545	0.974	13,559	3,278	24,016	19,562	219,071	429,282	33,170	32,947	141,019	127,913	1,159	2,450	812
2001	1,076,695	0.972	13,778	3,334	25,176	20,099	225,070	440,863	34,162	32,190	146,994	129,736	1,223	2,888	851
2002	1,124,037	0.975	16,045	3,608	26,404	20,639	235,402	465,800	35,644	33,483	146,823	134,733	1,223	2,957	927
2003	1,184,585	0.976	17,692	3,708	28,171	21,839	244,843	481,461	36,568	35,789	166,104	142,210	1,262	3,605	968
2004	1,264,600	0.980	19,012	3,902	29,245	23,190	257,406	505,589	38,938	39,965	185,876	154,462	1,366	4,232	1,052
2005	1,348,097	0.981	21,548	4,019	30,614	24,253	266,950	527,312	40,900	43,171	215,690	166,484	1,469	4,187	1,116
2006	1,436,166	0.990	25,808	4,273	31,333	25,593	279,732	555,073	44,730	45,156	236,541	180,462	1,618	4,240	1,214
2007	1,510,033	0.987	28,875	4,485	32,609	26,698	292,145	576,480	48,295	50,213	252,517	189,661	1,789	4,539	1,326
2008	1,583,160	0.987	30,396	4,628	34,083	27,152	300,632	579,638	50,923	64,820	285,052	196,921	2,000	4,942	1,545
2009	1,505,295	0.985	24,378	4,704	34,235	27,487	300,138	572,623	50,720	57,096	236,968	188,890	2,101	4,004	1,501
2010	1,596,394	0.983	27,702	4,923	35,721	28,937	313,802	601,857	53,315	62,453	258,960	199,619	2,290	4,614	1,725
2011	1,688,488	0.982	29,019	5,073	36,496	29,511	325,039	625,773	54,899	66,707	277,450	209,281	2,464	4,442	1,893
Compound Annual Nominal Growth Rates															
2000-2011	4.43	-	7.16	4.05	3.88	3.81	3.65	3.49	4.69	6.62	6.35	4.58	7.10	5.56	8.00
2000-2005	5.15	-	9.71	4.16	4.97	4.39	4.03	4.20	4.28	5.55	8.87	5.41	4.85	11.32	6.55
2005-2011	3.82	-	5.09	3.96	2.97	3.32	3.34	2.89	5.03	7.52	4.29	3.89	9.01	0.99	9.21

**Sources:** CANSIM table 3840001, 3800062.

**Note:** GNI=GDP in current dollars. 2011 CSLS estimates for provinces and territories (italicized) based on GDP projections from Appendix Table 2a multiplied by the national GNP/GDP ratio.

Appendix Table 10b: GNI per Capita, Current Dollars, Canada, Provinces and Territories, 1981-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1981	14,034	8,657	8,345	9,009	8,681	11,880	14,372	12,714	14,633	22,519	15,340	19,221	-	-
1982	14,596	9,434	9,004	10,320	9,620	12,498	15,011	12,976	14,682	23,133	15,106	18,428	-	-
1983	15,735	10,032	10,517	11,581	10,921	13,494	16,603	13,830	15,475	23,672	15,843	18,041	-	-
1984	17,004	10,640	10,629	12,623	11,853	14,647	18,259	15,359	16,257	25,197	16,378	18,421	-	-
1985	18,212	11,119	10,971	13,556	12,557	15,611	19,716	16,592	16,947	26,913	17,437	19,200	-	-
1986	18,969	12,142	12,259	14,562	13,939	16,870	21,337	17,044	16,688	23,013	18,185	24,673	-	-
1987	20,481	13,077	13,085	15,650	15,408	18,352	23,203	17,985	17,072	23,848	19,871	33,136	-	-
1988	22,145	14,250	14,303	16,496	16,480	19,935	25,223	19,330	17,740	25,186	21,564	34,819	-	-
1989	23,287	15,067	15,278	17,422	17,246	20,699	26,648	20,447	18,924	26,045	22,833	36,294	-	-
1990	23,671	15,393	16,035	17,993	17,529	21,126	26,483	21,099	20,307	27,719	23,237	36,414	-	-
1991	23,630	15,988	16,720	18,647	17,694	21,222	26,234	20,933	20,624	27,181	23,451	31,975	-	-
1992	23,795	15,864	17,275	18,966	18,084	21,466	26,116	21,163	20,369	27,432	24,239	34,790	-	-
1993	24,473	16,264	18,048	19,166	18,943	21,884	26,497	21,241	21,983	29,382	25,456	28,067	-	-
1994	25,616	17,218	18,207	19,408	19,636	22,842	27,710	22,271	23,367	31,417	26,349	29,543	-	-
1995	26,683	18,112	19,107	20,058	21,044	23,698	29,015	23,040	25,137	32,471	26,989	33,182	-	-
1996	27,306	17,982	20,094	20,242	21,353	24,068	29,480	24,221	27,444	34,339	27,148	34,722	-	-
1997	28,591	18,519	19,928	21,159	21,683	25,089	31,002	25,364	27,745	36,641	28,059	33,722	-	-
1998	29,333	20,014	21,221	22,203	22,713	26,005	32,143	26,323	28,081	35,828	28,068	33,737	-	-
1999	31,223	22,072	22,396	23,859	24,510	27,813	34,350	27,034	29,311	38,311	29,125	34,052	54,493	26,910
2000	34,170	25,683	24,023	25,718	26,065	29,777	36,743	28,911	32,700	46,941	31,668	38,087	60,512	29,540
2001	34,711	26,393	24,395	27,000	26,805	30,430	37,058	29,669	32,183	48,068	31,827	40,568	70,706	30,256
2002	35,850	30,883	26,362	28,239	27,543	31,636	38,524	30,817	33,591	46,933	32,876	40,273	70,972	32,173
2003	37,440	34,120	27,026	30,049	29,142	32,707	39,328	31,421	35,916	52,178	34,497	40,744	84,702	33,003
2004	39,592	36,741	28,341	31,132	30,946	34,157	40,804	33,179	40,067	57,379	37,173	43,389	97,734	35,242
2005	41,808	41,893	29,113	32,640	32,425	35,209	42,089	34,711	43,450	64,924	39,669	46,043	96,478	36,787
2006	44,087	50,573	30,979	33,404	34,322	36,655	43,826	37,777	45,515	69,139	42,526	50,129	98,152	39,416
2007	45,856	57,023	32,462	34,846	35,812	38,003	45,062	40,463	50,200	71,887	44,009	54,924	104,242	42,397
2008	47,515	60,028	33,149	36,366	36,346	38,788	44,813	42,243	63,930	79,362	44,918	60,411	113,133	48,855
2009	44,628	47,908	33,310	36,409	36,651	38,347	43,803	41,601	55,470	64,539	42,353	62,374	91,755	46,569
2010	46,779	54,182	34,332	37,807	38,437	39,693	45,499	43,186	59,819	69,596	44,069	66,250	105,281	52,524
2011	48,966	56,836	34,778	38,602	39,064	40,733	46,794	43,899	63,057	73,412	45,761	71,085	101,708	56,811
Compound Annual Nominal Growth Rates														
2000-2011	3.32	7.49	3.42	3.76	3.75	2.89	2.22	3.87	6.15	4.15	3.40	5.84	4.83	6.13
2000-2005	4.12	10.28	3.92	4.88	4.46	3.41	2.75	3.72	5.85	6.70	4.61	3.87	9.78	4.49
2005-2011	2.67	5.22	3.01	2.84	3.15	2.46	1.78	3.99	6.40	2.07	2.41	7.51	0.88	7.51

Source: Appendix Table 10a, 7a.

**Appendix Table 11: Life Expectancy Dimension Data and Calculations, Canada, Provinces and Territories, 1990, 2000, and 2005-2011**

Appendix Table 11a: Life Expectancy Using LFS Data, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	77.6	76.1	76.6	76.7	77.3	77.1	77.9	77.5	78.0	77.9	78.1	74.4	-	-
2000	79.4	77.3	78.2	78.6	78.8	79.2	79.5	78.1	78.6	79.5	80.5	75.6	75.9	67.8
2005	80.4	78.2	79.8	79.3	79.8	80.4	80.7	79.0	79.3	80.3	81.2	77.0	78.0	72.0
2006	80.8	78.2	79.9	79.6	80.1	80.9	81.1	79.3	79.4	80.5	81.4	77.0	78.0	72.0
2007	80.9	78.5	80.9	80.2	80.1	80.8	81.2	79.6	79.8	80.7	81.0	77.0	78.0	72.0
2008	81.0	78.8	79.8	79.9	80.4	81.3	81.6	79.6	79.3	80.6	77.1	78.1	72.2	77.1
2009	81.2	78.9	80.0	80.1	80.6	81.5	81.8	79.7	79.4	80.7	82.0	77.3	78.3	72.5
2010	81.4	79.1	80.2	80.2	80.7	81.8	82.0	79.8	79.4	80.9	82.2	77.4	78.4	72.7
2011	81.6	79.2	80.4	80.4	80.9	82.0	82.3	80.0	79.5	81.0	82.4	77.6	78.5	73.0

**Source:** Appendix Table 1

Appendix Table 12b: Proportion of Canadian Estimates that Provincial and Territorial Estimates Represent, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	1.000	0.981	0.987	0.988	0.996	0.994	1.004	0.999	1.005	1.004	1.006	0.959	-	-
2000	1.000	0.974	0.985	0.990	0.992	0.997	1.001	0.984	0.990	1.001	1.014	0.952	0.956	0.854
2005	1.000	0.973	0.993	0.986	0.993	1.000	1.004	0.983	0.986	0.999	1.010	0.958	0.970	0.896
2006	1.000	0.968	0.989	0.985	0.991	1.001	1.004	0.981	0.983	0.996	1.007	0.953	0.965	0.891
2007	1.000	0.970	1.000	0.991	0.990	0.999	1.004	0.984	0.986	0.998	1.001	0.952	0.964	0.890
2008	1.000	0.973	0.985	0.986	0.993	1.004	1.007	0.983	0.979	0.995	1.010	0.952	0.965	0.892
2009	1.000	0.972	0.985	0.986	0.992	1.004	1.008	0.982	0.978	0.995	1.010	0.952	0.964	0.893
2010	1.000	0.971	0.986	0.986	0.992	1.005	1.008	0.981	0.976	0.994	1.010	0.952	0.963	0.893
2011	1.000	0.971	0.986	0.985	0.992	1.006	1.008	0.980	0.975	0.994	1.010	0.951	0.963	0.894

**Source:** Appendix Table 11a.

Appendix Table 11c: Provincial and Territorial Estimates Proportional to 2011 HDR estimates for Canada, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	77.3	75.8	76.3	76.4	77.0	76.8	77.6	77.2	77.7	77.6	77.8	74.1	-	-
2000	79.1	77.0	77.9	78.3	78.5	78.9	79.2	77.8	78.3	79.2	80.2	75.3	75.6	67.5
2005	80.1	77.9	79.5	79.0	79.5	80.1	80.4	78.7	79.0	80.0	80.9	76.7	77.7	71.7
2006	80.3	77.7	79.4	79.1	79.6	80.4	80.6	78.8	78.9	80.0	80.9	76.5	77.5	71.6
2007	80.5	78.1	80.5	79.8	79.7	80.4	80.8	79.2	79.4	80.3	80.6	76.6	77.6	71.6
2008	80.6	78.4	79.4	79.5	80.0	80.9	81.2	79.2	78.9	80.2	81.4	76.8	77.7	71.9
2009	80.8	78.5	79.6	79.7	80.2	81.1	81.4	79.3	79.0	80.4	81.6	76.9	77.9	72.1
2010	80.9	78.6	79.7	79.7	80.2	81.3	81.5	79.4	79.0	80.4	81.7	77.0	77.9	72.3
2011	81.0	78.6	79.8	79.8	80.3	81.4	81.7	79.4	79.0	80.5	81.8	77.0	78.0	72.4

**Source:** Appendix Table 11a,b, Canada data taken from the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/69206.html>)

Appendix Table 11d: Life Expectancy Index Based on 2011 HDR Proportional Estimates, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	0.904	0.880	0.888	0.890	0.899	0.896	0.908	0.902	0.910	0.908	0.912	0.854	-	-
2000	0.932	0.899	0.913	0.920	0.923	0.929	0.934	0.912	0.920	0.934	0.949	0.872	0.877	0.750
2005	0.948	0.913	0.939	0.931	0.939	0.948	0.953	0.926	0.931	0.946	0.961	0.895	0.910	0.816
2006	0.951	0.910	0.937	0.932	0.940	0.953	0.956	0.928	0.929	0.946	0.961	0.892	0.907	0.813
2007	0.954	0.917	0.954	0.943	0.942	0.953	0.959	0.934	0.937	0.951	0.956	0.893	0.909	0.815
2008	0.956	0.921	0.937	0.939	0.946	0.961	0.965	0.934	0.929	0.950	0.968	0.895	0.911	0.818
2009	0.959	0.923	0.940	0.941	0.949	0.964	0.969	0.936	0.930	0.952	0.972	0.898	0.913	0.822
2010	0.961	0.924	0.942	0.942	0.950	0.967	0.971	0.936	0.930	0.953	0.973	0.899	0.914	0.825
2011	0.962	0.925	0.944	0.943	0.951	0.969	0.973	0.937	0.930	0.954	0.975	0.900	0.914	0.827

**Source:** Appendix Table 11c; HDR 2011 for minimum= 20 and maximum=83.4 (Japan 2011).

**Appendix Table 12: Average Educational Attainment Dimension Data and Calculations, Canada, Provinces and Territories, 1990, 2000, and 2005-2011**

Appendix Table 12a: Estimated Average Educational Attainment Using LFS Data, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	11.3	10.7	10.7	11.2	10.9	10.9	11.4	11.0	11.0	11.6	11.7	-	-	-
2000	11.9	11.4	11.5	11.8	11.6	11.6	12.1	11.7	11.7	12.2	12.2	12.2	12.2	10.7
2005	12.2	11.8	12.0	12.1	11.9	12.0	12.3	12.0	12.0	12.4	12.4	12.5	11.9	10.3
2006	12.3	11.8	12.0	12.1	12.0	12.1	12.4	12.0	12.0	12.4	12.4	12.2	12.1	10.9
2007	12.3	11.8	12.0	12.2	12.0	12.2	12.5	12.0	12.1	12.5	12.5	12.4	12.2	11.2
2008	12.4	11.9	12.0	12.2	12.1	12.2	12.5	12.1	12.1	12.5	12.5	12.4	12.0	11.0
2009	12.4	11.9	12.1	12.2	12.1	12.2	12.5	12.2	12.2	12.6	12.6	12.3	11.9	10.9
2010	12.5	12.1	12.2	12.4	12.1	12.3	12.6	12.3	12.3	12.6	12.6	12.2	11.9	10.8
2011	12.5	12.1	12.3	12.4	12.1	12.3	12.6	12.3	12.3	12.6	12.7	12.5	12.2	10.9

**Source:** Appendix Table 8

Appendix Table 12b: Proportion of Canadian Estimates that Provincial and Territorial Estimates Represent, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	1.000	0.953	0.948	0.990	0.968	0.968	1.012	0.977	0.977	1.033	1.039	-	-	-
2000	1.000	0.956	0.965	0.991	0.970	0.975	1.012	0.984	0.979	1.020	1.023	1.020	1.020	0.896
2005	1.000	0.962	0.983	0.990	0.972	0.983	1.009	0.980	0.981	1.016	1.014	1.021	0.976	0.841
2006	1.000	0.962	0.980	0.988	0.976	0.985	1.010	0.978	0.980	1.013	1.011	0.995	0.985	0.887
2007	1.000	0.960	0.975	0.989	0.972	0.985	1.010	0.973	0.979	1.013	1.011	1.002	0.990	0.910
2008	1.000	0.959	0.969	0.983	0.975	0.985	1.010	0.979	0.980	1.012	1.011	1.005	0.970	0.890
2009	1.000	0.963	0.978	0.987	0.976	0.985	1.008	0.981	0.984	1.015	1.012	0.995	0.961	0.877
2010	1.000	0.967	0.979	0.993	0.973	0.985	1.009	0.983	0.985	1.011	1.012	0.975	0.957	0.863
2011	1.000	0.968	0.981	0.989	0.968	0.986	1.008	0.983	0.983	1.008	1.013	1.000	0.973	0.874

**Source:** Appendix Table 12a.

Appendix Table 12c: Provincial and Territorial Estimates Proportional to 2011 HDR Estimates for Canada, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	10.3	9.8	9.8	10.2	10.0	10.4	10.1	10.6	10.1	10.6	10.7	-	-	-
2000	11.1	10.6	10.7	11.0	10.8	10.8	11.2	10.9	10.9	11.3	11.4	11.3	11.3	9.9
2005	11.3	10.9	11.1	11.2	11.0	11.1	11.4	11.1	11.1	11.5	11.5	11.5	11.0	9.5
2006	11.5	11.1	11.3	11.4	11.2	11.3	11.6	11.2	11.3	11.6	11.6	11.4	11.3	10.2
2007	11.6	11.1	11.3	11.5	11.3	11.4	11.7	11.3	11.4	11.8	11.7	11.6	11.5	10.6
2008	11.8	11.3	11.4	11.6	11.5	11.6	11.9	11.6	11.6	11.9	11.9	11.9	11.4	10.5
2009	12.0	11.6	11.7	11.8	11.7	11.8	12.1	11.8	11.8	12.2	12.1	11.9	11.5	10.5
2010	12.1	11.7	11.8	12.0	11.8	11.9	12.2	11.9	11.9	12.2	12.2	11.8	11.6	10.4
2011	12.1	11.7	11.9	12.0	11.7	11.9	12.2	11.9	11.9	12.2	12.3	12.1	11.8	10.6

**Source:** Appendix Table 12a,b, Canada data taken from the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/103006.html>)

Appendix Table 12d: Estimated Average Educational Attainment Index Based on 2011 HDR Proportional Estimates, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	0.786	0.749	0.746	0.779	0.761	0.761	0.796	0.768	0.768	0.812	0.817	-	-	-
2000	0.847	0.810	0.818	0.839	0.822	0.826	0.857	0.834	0.829	0.865	0.867	0.864	0.864	0.760
2005	0.863	0.830	0.848	0.854	0.838	0.848	0.871	0.846	0.847	0.877	0.875	0.881	0.842	0.725
2006	0.878	0.845	0.860	0.867	0.857	0.865	0.886	0.858	0.860	0.889	0.887	0.874	0.864	0.779
2007	0.885	0.850	0.863	0.876	0.860	0.872	0.895	0.861	0.867	0.897	0.895	0.887	0.877	0.806
2008	0.901	0.864	0.873	0.886	0.878	0.887	0.910	0.882	0.882	0.912	0.911	0.905	0.874	0.802
2009	0.916	0.882	0.896	0.904	0.894	0.902	0.924	0.899	0.901	0.929	0.927	0.911	0.880	0.803
2010	0.924	0.894	0.904	0.917	0.899	0.910	0.932	0.908	0.909	0.934	0.934	0.901	0.884	0.797
2011	0.924	0.894	0.906	0.913	0.894	0.911	0.931	0.908	0.908	0.931	0.936	0.924	0.899	0.808

**Source:** Appendix Table 12c; HDR 2011 for minimum=0 and maximum=13.1 (Czech Republic, 2005).

**Appendix Table 13: Expected Years of Schooling Dimension Data and Calculations, Canada, Provinces and Territories, 1990, 2000, and 2005-2011**

Appendix Table 13a: Estimated Expected Years of Schooling Using LFS Data, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	14.8	14.4	14.3	14.8	14.2	14.9	15.2	14.5	14.5	14.5	14.3	-	-	-
2000	15.6	15.7	15.1	15.7	14.9	15.7	15.9	15.0	15.1	14.8	15.6	13.9	14.5	13.1
2005	15.9	15.7	15.3	15.6	15.3	16.1	16.2	15.4	15.1	14.9	15.7	13.8	14.1	13.3
2006	15.8	15.9	15.3	15.7	15.3	16.2	16.1	15.5	15.1	14.9	15.7	14.4	14.2	13.5
2007	15.8	15.9	15.4	15.6	15.5	16.2	16.2	15.3	14.9	14.7	15.6	14.2	14.2	13.0
2008	15.8	15.8	15.5	15.3	15.3	16.1	16.1	15.3	14.9	14.7	15.6	13.0	13.8	12.9
2009	15.8	15.7	15.4	15.4	15.2	16.2	16.2	15.3	14.8	14.8	15.7	13.1	14.5	13.6
2010	16.0	15.6	15.6	15.6	15.3	16.3	16.3	15.4	15.0	15.1	15.8	13.8	14.1	13.2
2011	16.0	15.6	15.5	15.8	15.4	16.4	16.2	15.3	15.0	15.0	15.9	14.3	14.6	12.8

**Source:** Appendix Table 9

Appendix Table 13b: Proportion of Canadian Estimates that Provincial and Territorial Estimates Represent, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	1.000	0.970	0.966	0.996	0.959	1.005	1.023	0.975	0.980	0.975	0.966	-	-	-
2000	1.000	1.006	0.969	1.006	0.954	1.008	1.017	0.960	0.966	0.952	1.003	0.889	0.929	0.840
2005	1.000	0.991	0.965	0.981	0.966	1.015	1.023	0.973	0.954	0.941	0.988	0.870	0.888	0.838
2006	1.000	1.005	0.964	0.994	0.967	1.021	1.016	0.978	0.953	0.942	0.990	0.907	0.895	0.851
2007	1.000	1.004	0.976	0.988	0.982	1.022	1.022	0.968	0.945	0.932	0.985	0.897	0.896	0.820
2008	1.000	1.001	0.982	0.974	0.972	1.021	1.021	0.974	0.947	0.933	0.991	0.826	0.878	0.819
2009	1.000	0.992	0.973	0.969	0.957	1.020	1.025	0.963	0.936	0.936	0.989	0.826	0.914	0.857
2010	1.000	0.974	0.977	0.979	0.961	1.021	1.020	0.966	0.941	0.947	0.990	0.863	0.885	0.826
2011	1.000	0.973	0.970	0.986	0.960	1.028	1.016	0.959	0.940	0.938	0.997	0.893	0.916	0.799

**Source:** Appendix Table 13a.

Appendix Table 13c: Provincial and Territorial Estimates Proportional to 2011 HDR Estimates for Canada, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	16.7	16.2	16.1	16.6	16.0	16.8	17.1	16.3	16.4	16.3	16.1	-	-	-
2000	15.9	16.0	15.4	16.0	15.2	16.0	16.2	15.3	15.4	15.1	15.9	14.1	14.8	13.4
2005	16.0	15.9	15.4	15.7	15.4	16.2	16.4	15.6	15.3	15.1	15.8	13.9	14.2	13.4
2006	16.0	16.1	15.4	15.9	15.5	16.3	16.3	15.6	15.2	15.1	15.8	14.5	14.3	13.6
2007	16.0	16.1	15.6	15.8	15.7	16.3	16.4	15.5	15.1	14.9	15.8	14.4	14.3	13.1
2008	16.0	16.0	15.7	15.6	15.6	16.3	16.3	15.6	15.2	14.9	15.9	13.2	14.0	13.1
2009	16.0	15.9	15.6	15.5	15.3	16.3	16.4	15.4	15.0	15.0	15.8	13.2	14.6	13.7
2010	16.0	15.6	15.6	15.7	15.4	16.3	16.3	15.5	15.1	15.1	15.8	13.8	14.2	13.2
2011	16.0	15.6	15.5	15.8	15.4	16.4	16.3	15.3	15.0	15.0	16.0	14.3	14.7	12.8

**Source:** Appendix Table 13a,b, Canada data taken from the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/69706.html>)

Appendix Table 13d: Estimated Expected Years of Schooling Index Based on 2011 HDR Proportional Estimates, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	0.928	0.900	0.896	0.924	0.890	0.932	0.949	0.904	0.909	0.905	0.896	-	-	-
2000	0.883	0.888	0.856	0.889	0.843	0.891	0.898	0.848	0.854	0.841	0.886	0.786	0.821	0.742
2005	0.889	0.881	0.858	0.872	0.858	0.902	0.909	0.865	0.848	0.836	0.878	0.773	0.790	0.745
2006	0.889	0.893	0.857	0.884	0.860	0.907	0.903	0.869	0.847	0.837	0.880	0.807	0.796	0.756
2007	0.889	0.892	0.868	0.878	0.873	0.908	0.908	0.861	0.840	0.828	0.875	0.798	0.797	0.729
2008	0.889	0.890	0.873	0.865	0.864	0.908	0.907	0.866	0.842	0.830	0.881	0.734	0.780	0.728
2009	0.889	0.881	0.865	0.862	0.851	0.907	0.911	0.856	0.832	0.832	0.879	0.734	0.813	0.762
2010	0.889	0.866	0.869	0.870	0.854	0.907	0.907	0.859	0.836	0.841	0.880	0.767	0.787	0.734
2011	0.889	0.865	0.862	0.876	0.854	0.914	0.903	0.853	0.835	0.834	0.887	0.793	0.814	0.711

**Source:** Appendix Table 13c; HDR 2011 for minimum=0 and maximum=18.0 (cap).

**Appendix Table 14: Education Index Based on 2011 HDR Consistent Estimates, Canada, Provinces and Territories, 1990, 2000, and 2005-2011**

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	0.873	0.840	0.836	0.867	0.841	0.861	0.889	0.852	0.855	0.877	0.875	-	-	-
2000	0.885	0.867	0.856	0.883	0.851	0.877	0.897	0.860	0.860	0.872	0.896	0.843	0.861	0.767
2005	0.895	0.874	0.872	0.883	0.867	0.894	0.910	0.875	0.866	0.876	0.896	0.844	0.833	0.752
2006	0.903	0.888	0.878	0.895	0.878	0.906	0.915	0.883	0.873	0.882	0.904	0.858	0.848	0.785
2007	0.907	0.891	0.885	0.897	0.886	0.910	0.922	0.880	0.872	0.881	0.905	0.860	0.855	0.784
2008	0.915	0.897	0.893	0.895	0.891	0.918	0.929	0.894	0.881	0.889	0.916	0.834	0.844	0.781
2009	0.923	0.902	0.900	0.903	0.892	0.925	0.938	0.897	0.885	0.899	0.923	0.837	0.865	0.800
2010	0.926	0.900	0.906	0.914	0.896	0.929	0.940	0.903	0.892	0.906	0.927	0.850	0.853	0.782
2011	0.926	0.899	0.904	0.914	0.893	0.933	0.938	0.899	0.890	0.901	0.931	0.875	0.875	0.775

**Source:** Appendix Table 12d,13d; HDR 2011 for minimum=0 and maximum=0.978 (New Zealand 2010).

**Appendix Table 15: Income Dimension Data and Calculations, Canada, Provinces and Territories, 1990, 2000, and 2005-2011**

Appendix Table 15a: GNI per Capita in Current Dollars, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	23,671	15,393	16,035	17,993	17,529	21,126	26,483	21,099	20,307	27,719	23,237	36,414	-	-
2000	34,170	25,683	24,023	25,718	26,065	29,777	36,743	28,911	32,700	46,941	31,668	38,087	60,512	29,540
2005	41,808	41,893	29,113	32,640	32,425	35,209	42,089	34,711	43,450	64,924	39,669	46,043	96,478	36,787
2006	44,087	50,573	30,979	33,404	34,322	36,655	43,826	37,777	45,515	69,139	42,526	50,129	98,152	39,416
2007	45,856	57,023	32,462	34,846	35,812	38,003	45,062	40,463	50,200	71,887	44,009	54,924	104,242	42,397
2008	47,515	60,028	33,149	36,366	36,346	38,788	44,813	42,243	63,930	79,362	44,918	60,411	113,133	48,855
2009	44,628	47,908	33,310	36,409	36,651	38,347	43,803	41,601	55,470	64,539	42,353	62,374	91,755	46,569
2010	46,779	54,182	34,332	37,807	38,437	39,693	45,499	43,186	59,819	69,596	44,069	66,250	105,281	52,524
2011	48,966	56,836	34,778	38,602	39,064	40,733	46,794	43,899	63,057	73,412	45,761	71,085	101,708	56,811

**Source:** Appendix Table 10b

Appendix Table 15b: GNI per Capita in 2005 PPP adjusted US Dollars, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	25,214	16,396	17,080	19,166	18,671	22,503	28,209	22,474	21,630	29,526	24,751	38,788	-	-
2000	30,792	23,143	21,647	23,175	23,488	26,833	33,111	26,053	29,467	42,300	28,537	34,321	54,529	26,619
2005	34,448	34,519	23,988	26,894	26,717	29,011	34,680	28,601	35,802	53,495	32,686	37,938	79,494	30,312
2006	35,482	40,702	24,933	26,884	27,623	29,500	35,272	30,404	36,631	55,644	34,226	40,345	78,995	31,723
2007	36,101	44,892	25,556	27,433	28,193	29,918	35,476	31,855	39,520	56,594	34,646	43,240	82,066	33,377
2008	36,576	46,207	25,517	27,994	27,978	29,857	34,496	32,518	49,211	61,090	34,576	46,503	87,086	37,607
2009	33,901	36,392	25,303	27,658	27,841	29,130	33,274	31,602	42,137	49,026	32,173	47,381	69,700	35,375
2010	35,104	40,660	25,763	28,371	28,844	29,787	34,144	32,408	44,890	52,226	33,070	49,716	79,005	39,415
2011	36,058	41,853	25,610	28,426	28,766	29,995	34,458	32,327	46,434	54,059	33,698	52,346	74,896	41,835

**Source:** Appendix Table 3 and 15a

Appendix Table 15c: Proportion of Canadian Estimates that Provincial and Territorial Estimates Represent, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	1.000	0.650	0.677	0.760	0.741	0.892	1.119	0.891	0.858	1.171	0.982	1.538	-	-
2000	1.000	0.752	0.703	0.753	0.763	0.871	1.075	0.846	0.957	1.374	0.927	1.115	1.771	0.864
2005	1.000	1.002	0.696	0.781	0.776	0.842	1.007	0.830	1.039	1.553	0.949	1.101	2.308	0.880
2006	1.000	1.147	0.703	0.758	0.779	0.831	0.994	0.857	1.032	1.568	0.965	1.137	2.226	0.894
2007	1.000	1.244	0.708	0.760	0.781	0.829	0.983	0.882	1.095	1.568	0.960	1.198	2.273	0.925
2008	1.000	1.263	0.698	0.765	0.765	0.816	0.943	0.889	1.345	1.670	0.945	1.271	2.381	1.028
2009	1.000	1.073	0.746	0.816	0.821	0.859	0.982	0.932	1.243	1.446	0.949	1.398	2.056	1.043
2010	1.000	1.158	0.734	0.808	0.822	0.849	0.973	0.923	1.279	1.488	0.942	1.416	2.251	1.123
2011	1.000	1.161	0.710	0.788	0.798	0.832	0.956	0.897	1.288	1.499	0.935	1.452	2.077	1.160

**Source:** Appendix Table 15b.

Appendix Table 15d: Provincial and Territorial Estimates Proportional to 2011 HDR Estimates for Canada, 2005 PPP adjusted US dollars, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	25,980	16,895	17,599	19,749	19,239	23,187	29,066	23,157	22,288	30,423	25,503	39,966	-	-
2000	31,602	23,752	22,217	23,785	24,106	27,539	33,981	26,738	30,242	43,412	29,287	35,224	55,963	27,319
2005	34,380	34,451	23,941	26,841	26,664	28,954	34,611	28,544	35,731	53,389	32,622	37,863	79,337	30,252
2006	35,303	40,497	24,807	26,749	27,484	29,352	35,094	30,251	36,447	55,364	34,053	40,141	78,597	31,563
2007	35,613	44,285	25,210	27,062	27,812	29,514	34,996	31,424	38,986	55,829	34,178	42,656	80,957	32,926
2008	35,478	44,821	24,752	27,154	27,139	28,961	33,461	31,542	47,734	59,257	33,539	45,107	84,473	36,478
2009	34,086	36,591	25,441	27,808	27,993	29,289	33,456	31,774	42,367	49,293	32,348	47,640	70,080	35,568
2010	34,729	40,225	25,488	28,068	28,536	29,468	33,779	32,061	44,410	51,668	32,717	49,184	78,161	38,994
2011	35,166	40,818	24,976	27,723	28,055	29,254	33,606	31,527	45,286	52,722	32,864	51,051	73,044	40,800

Source: Appendix Table 15b,c, Canada data taken from the International Human Development Indicators website (<http://hdrstats.undp.org/en/indicators/90406.html>).

Appendix Table 15e: Income Index Based on 2011 HDR Proportional Estimates, Canada, Provinces and Territories, 1990, 2000, and 2005-2011

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	0.796	0.735	0.741	0.757	0.753	0.780	0.812	0.780	0.774	0.819	0.794	0.858	-	-
2000	0.824	0.783	0.774	0.784	0.786	0.805	0.835	0.800	0.818	0.870	0.813	0.840	0.906	0.804
2005	0.836	0.837	0.785	0.801	0.800	0.812	0.837	0.810	0.842	0.899	0.829	0.850	0.956	0.818
2006	0.840	0.860	0.790	0.800	0.804	0.814	0.839	0.818	0.845	0.905	0.835	0.859	0.955	0.824
2007	0.841	0.873	0.792	0.802	0.806	0.815	0.839	0.824	0.854	0.906	0.836	0.867	0.959	0.830
2008	0.841	0.874	0.789	0.803	0.803	0.812	0.833	0.824	0.883	0.914	0.833	0.875	0.965	0.845
2009	0.835	0.845	0.793	0.806	0.807	0.813	0.833	0.825	0.866	0.888	0.828	0.883	0.938	0.841
2010	0.838	0.859	0.794	0.807	0.810	0.814	0.834	0.826	0.873	0.895	0.829	0.888	0.954	0.854
2011	0.840	0.861	0.791	0.806	0.807	0.813	0.833	0.824	0.876	0.898	0.830	0.893	0.944	0.861

Source: Appendix Table 15d; HDR 2011 for minimum=100 and maximum=107,721 (Qatar, 2011).

**Appendix Table 16: Human Development Index Based on 2011 HDR Consistent Estimates, Canada, Provinces and Territories, 1990, 2000, and 2005-2011**

Year	Canada	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	NU
1990	0.857	0.816	0.819	0.836	0.829	0.844	0.869	0.843	0.844	0.867	0.859	-	-	-
2000	0.879	0.849	0.846	0.860	0.851	0.869	0.888	0.856	0.865	0.891	0.884	0.852	0.881	0.773
2005	0.892	0.874	0.863	0.870	0.867	0.883	0.899	0.869	0.879	0.907	0.894	0.863	0.899	0.795
2006	0.897	0.886	0.866	0.874	0.872	0.889	0.902	0.875	0.882	0.911	0.898	0.869	0.902	0.807
2007	0.900	0.893	0.875	0.879	0.876	0.891	0.905	0.878	0.887	0.912	0.898	0.873	0.906	0.809
2008	0.903	0.897	0.871	0.877	0.878	0.894	0.907	0.883	0.898	0.917	0.904	0.868	0.905	0.814
2009	0.904	0.889	0.876	0.881	0.881	0.899	0.911	0.885	0.894	0.913	0.905	0.872	0.905	0.821
2010	0.907	0.894	0.878	0.886	0.883	0.901	0.913	0.887	0.898	0.918	0.908	0.879	0.906	0.820
2011	0.908	0.894	0.877	0.886	0.882	0.903	0.913	0.885	0.898	0.917	0.910	0.889	0.911	0.820
Compound Annual Growth Rate														
1990-2011	0.28	0.44	0.33	0.28	0.30	0.32	0.23	0.23	0.30	0.27	0.28	-	-	-
1990-2000	0.26	0.39	0.32	0.29	0.27	0.28	0.21	0.15	0.24	0.27	0.30	-	-	-
2000-2011	0.29	0.48	0.33	0.27	0.32	0.35	0.25	0.31	0.35	0.26	0.26	0.40	0.30	0.54
2000-2005	0.29	0.60	0.40	0.22	0.36	0.32	0.25	0.30	0.32	0.34	0.21	0.26	0.39	0.54
2005-2011	0.29	0.38	0.28	0.30	0.29	0.37	0.26	0.32	0.37	0.19	0.31	0.51	0.23	0.53

Source: Appendix Table 11d, 14, 15d.

**Appendix Table 17: International Rankings from 2011 HDR with Provinces and Territories Inserted on an Individual Basis, HDI and Component Indicators, 2011**

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
1	Japan	83.4	1	Norway	12.6	1	Australia	18.0	1	Qatar	107,721	1	Norway	0.943
2	Hong Kong, China (SAR)	82.8	2	New Zealand	12.5	1	New Zealand	18.0	2	Liechtenstein	83,717	2	Australia	0.929
3	Switzerland	82.3	3	United States	12.4	1	Ireland	18.0	3	NWT	73,044	3	AB	0.917
4	Australia	81.9	4	Czech Republic	12.3	1	Iceland	18.0	3	United Arab Emirates	59,993	3	ON	0.913
5	Italy	81.9	5	BC	12.3	5	Cuba	17.5	4	AB	52,722	3	NWT	0.911
6	BC	81.8	5	Germany	12.2	6	Norway	17.3	4	Singapore	52,569	3	BC	0.910
6	Iceland	81.8	6	ON	12.2	7	Denmark	16.9	5	YT	51,051	3	Netherlands	0.910
7	ON	81.7	6	AB	12.2	8	Slovenia	16.9	5	Luxembourg	50,557	4	United States	0.910
7	Israel	81.6	6	Canada	12.1	9	Korea (Republic of)	16.9	6	Kuwait	47,926	5	New Zealand	0.908
8	France	81.5	7	Palau	12.1	10	Finland	16.8	7	Norway	47,557	6	Canada	0.908
9	QC	81.4	8	Georgia	12.1	11	Netherlands	16.8	8	Brunei Darussalam	45,753	7	Ireland	0.908
9	Sweden	81.4	9	YT	12.1	12	Libyan Arab Jamahiriya	16.6	9	SK	45,286	8	Liechtenstein	0.905
10	Spain	81.4	9	Australia	12.0	13	Spain	16.6	9	Hong Kong, China (SAR)	44,805	9	Germany	0.905
11	Singapore	81.1	10	Estonia	12.0	14	Greece	16.5	10	United States	43,017	10	Sweden	0.904
12	Norway	81.1	11	NS	12.0	15	QC	16.4	11	NFLD	40,818	11	QC	0.903
13	Canada	81.0	11	QC	11.9	15	Italy	16.3	11	NU	40,800	11	Switzerland	0.903
14	Andorra	80.9	11	Israel	11.9	16	ON	16.3	11	Switzerland	39,924	12	Japan	0.901
15	Austria	80.9	12	SK	11.9	16	United Kingdom	16.1	12	Netherlands	36,402	13	SK	0.898
16	Netherlands	80.7	12	MB	11.9	17	France	16.1	13	Andorra	36,095	13	Hong Kong, China (SAR)	0.898
17	New Zealand	80.7	12	PEI	11.9	18	Lithuania	16.1	14	Sweden	35,837	14	Iceland	0.898
18	Korea (Republic of)	80.6	12	NWT	11.8	19	Belgium	16.1	15	Austria	35,719	15	Korea (Republic of)	0.897

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
19	Ireland	80.6	12	Sweden	11.7	20	Grenada	16.0	16	Canada	35,166	16	Denmark	0.895
20	AB	80.5	13	NB	11.7	21	United States	16.0	17	Germany	34,854	17	NFLD	0.894
20	Germany	80.4	13	NFLD	11.7	22	BC	16.0	18	Australia	34,431	17	YT	0.889
21	NB	80.3	13	Netherlands	11.6	22	Canada	16.0	19	Denmark	34,347	17	Israel	0.888
21	United Kingdom	80.2	14	Korea (Republic of)	11.6	23	Portugal	15.9	20	ON	33,606	18	NS	0.886
22	Belgium	80.0	15	Ireland	11.6	24	Germany	15.9	20	Belgium	33,357	18	Belgium	0.886
23	Finland	80.0	16	Slovenia	11.6	25	NS	15.8	21	United Kingdom	33,296	19	MB	0.885
24	Luxembourg	80.0	17	Japan	11.6	25	Argentina	15.8	22	BC	32,864	19	Austria	0.885
25	Greece	79.9	18	Slovakia	11.6	26	Hong Kong, China (SAR)	15.7	22	Finland	32,438	20	France	0.884
26	PEI	79.8	19	Latvia	11.5	27	Estonia	15.7	23	Japan	32,295	21	Slovenia	0.884
26	NS	79.8	20	Denmark	11.4	28	Sweden	15.7	24	MB	31,527	22	Finland	0.882
26	Liechtenstein	79.6	21	Ukraine	11.3	29	Czech Republic	15.6	24	France	30,462	23	NB	0.882
27	Malta	79.6	22	Hungary	11.1	30	Switzerland	15.6	25	Iceland	29,354	23	Spain	0.878
28	Cyprus	79.6	23	Switzerland	11.0	31	NFLD	15.6	26	Ireland	29,322	24	PEI	0.877
29	Portugal	79.5	24	Lithuania	10.9	31	Israel	15.5	27	QC	29,254	24	Italy	0.874
30	MB	79.4	25	Belgium	10.9	32	PEI	15.5	27	Korea (Republic of)	28,230	25	Luxembourg	0.867
30	Slovenia	79.3	26	Austria	10.8	32	Uruguay	15.5	28	Bahrain	28,169	26	Singapore	0.866
31	Costa Rica	79.3	27	Armenia	10.8	33	NB	15.4	29	NB	28,055	27	Czech Republic	0.865
32	Cuba	79.1	28	Fiji	10.7	33	MB	15.3	29	NS	27,723	28	United Kingdom	0.863
33	Chile	79.1	29	Montenegro	10.6	33	Austria	15.3	29	Spain	26,508	29	Greece	0.861
34	SK	79.0	30	NU	10.6	34	Poland	15.3	30	Italy	26,484	30	United Arab Emirates	0.846
34	Denmark	78.8	30	France	10.6	35	Hungary	15.3	31	Israel	25,849	31	Cyprus	0.840
35	NFLD	78.6	31	Bulgaria	10.6	36	Japan	15.1	PEI	24,976	32	Andorra	0.838	
35	United States	78.5	32	Romania	10.4	37	Kazakhstan	15.1	32	Slovenia	24,914	33	Brunei Darussalam	0.838
36	Qatar	78.4	33	Iceland	10.4	38	SK	15.0	33	Cyprus	24,841	34	Estonia	0.835

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
37	Brunei Darussalam	78.0	34	Spain	10.4	38	AB	15.0	34	Greece	23,747	35	Slovakia	0.834
38	NWT	78.0	35	Andorra	10.4	38	Latvia	15.0	35	New Zealand	23,737	36	Malta	0.832
38	Czech Republic	77.7	36	Albania	10.4	39	Slovakia	14.9	36	Trinidad and Tobago	23,439	37	Qatar	0.831
39	Dominica	77.5	37	Kazakhstan	10.4	40	Romania	14.9	37	Saudi Arabia	23,274	38	NU	0.820
40	YU	77.0	38	Samoa	10.3	41	Palau	14.7	38	Bahamas	23,029	38	Hungary	0.816
40	Uruguay	77.0	39	Finland	10.3	42	Ukraine	14.7	39	Oman	22,841	39	Poland	0.813
41	Mexico	77.0	40	Tonga	10.3	43	Cyprus	14.7	40	Malta	21,460	40	Lithuania	0.810
42	Albania	76.9	41	Liechtenstein	10.3	44	Chile	14.7	41	Czech Republic	21,405	41	Portugal	0.809
43	Maldives	76.8	42	Serbia	10.2	45	Liechtenstein	14.7	42	Portugal	20,573	42	Bahrain	0.806
44	Barbados	76.8	43	Greece	10.1	46	NWT	14.7	43	Slovakia	19,998	43	Latvia	0.805
45	Croatia	76.6	44	Italy	10.1	46	Belarus	14.6	44	Barbados	17,966	44	Chile	0.805
46	United Arab Emirates	76.5	45	Luxembourg	10.1	47	Tunisia	14.5	45	Equatorial Guinea	17,608	45	Argentina	0.797
47	Panama	76.1	46	Hong Kong, China (SAR)	10.0	48	Malta	14.4	46	Poland	17,451	46	Croatia	0.796
48	Poland	76.1	47	Poland	10.0	49	Singapore	14.4	47	Estonia	16,799	47	Barbados	0.793
49	Belize	76.1	48	Uzbekistan	10.0	50	YT	14.3	48	Seychelles	16,729	48	Uruguay	0.783
50	Grenada	76.0	49	Malta	9.9	50	Venezuela (Bolivarian Republic of)	14.2	49	Hungary	16,581	49	Palau	0.782
51	Argentina	75.9	50	Turkmenistan	9.9	51	Mongolia	14.1	50	Lithuania	16,234	50	Romania	0.781
52	Syrian Arab Republic	75.9	51	Cuba	9.9	52	Brunei Darussalam	14.1	51	Croatia	15,729	51	Cuba	0.776
53	Bosnia and Herzegovina	75.7	52	Russian Federation	9.8	53	Russian Federation	14.1	52	Antigua and Barbuda	15,521	52	Seychelles	0.773
54	Ecuador	75.6	53	Tajikistan	9.8	54	Ecuador	14.0	53	Russian Federation	14,561	53	Bahamas	0.771
55	Bahamas	75.6	54	Croatia	9.8	55	Antigua and Barbuda	14.0	54	Argentina	14,527	54	Montenegro	0.771
56	Slovakia	75.4	55	Cyprus	9.8	56	Mexico	13.9	55	Latvia	14,293	55	Bulgaria	0.771
57	Viet Nam	75.2	56	Chile	9.7	57	Croatia	13.9	56	Malaysia	13,685	56	Saudi Arabia	0.770

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
58	Bahrain	75.1	57	Moldova (Republic of)	9.7	58	Jamaica	13.8	57	Belarus	13,439	57	Mexico	0.770
59	Sri Lanka	74.9	58	Jamaica	9.6	59	Brazil	13.8	58	Chile	13,329	58	Panama	0.768
60	The former Yugoslav Republic of Macedonia	74.8	59	Malaysia	9.5	60	Lebanon	13.8	59	Mexico	13,245	59	Serbia	0.766
61	Estonia	74.8	60	Bahrain	9.4	61	Saudi Arabia	13.7	60	Uruguay	13,242	60	Antigua and Barbuda	0.764
62	Libyan Arab Jamahiriya	74.8	61	Seychelles	9.4	62	Serbia	13.7	61	Lebanon	13,076	61	Malaysia	0.761
63	Saint Lucia	74.6	62	Panama	9.4	63	Bolivia (Plurinational State of)	13.7	62	Botswana	13,049	62	Trinidad and Tobago	0.760
64	Kuwait	74.6	63	Barbados	9.3	64	Bulgaria	13.7	63	Mauritius	12,918	63	Kuwait	0.760
65	Montenegro	74.6	64	Belarus	9.3	65	Montenegro	13.7	64	Libyan Arab Jamahiriya	12,637	64	Libyan Arab Jamahiriya	0.760
66	Serbia	74.5	65	Argentina	9.3	66	Tonga	13.7	65	Panama	12,335	65	Belarus	0.756
67	Tunisia	74.5	66	Kyrgyzstan	9.3	67	Colombia	13.6	66	Gabon	12,249	66	Russian Federation	0.755
68	Hungary	74.4	67	United Arab Emirates	9.3	68	Mauritius	13.6	67	Turkey	12,246	67	Grenada	0.748
69	Venezuela (Bolivarian Republic of)	74.4	68	United Kingdom	9.3	69	Algeria	13.6	68	Saint Kitts and Nevis	11,897	68	Kazakhstan	0.745
70	Armenia	74.2	69	Trinidad and Tobago	9.2	70	Bosnia and Herzegovina	13.6	69	Bulgaria	11,412	69	Costa Rica	0.744
71	Malaysia	74.2	70	Bolivia (Plurinational State of)	9.2	71	Barbados	13.4	70	Romania	11,046	70	Albania	0.739
72	Cape Verde	74.2	71	Antigua and Barbuda	8.9	72	Bahrain	13.4	71	Venezuela (Bolivarian Republic of)	10,656	71	Lebanon	0.739
73	Thailand	74.1	72	Botswana	8.9	73	The former Yugoslav Republic of Macedonia	13.3	72	Kazakhstan	10,585	72	Saint Kitts and Nevis	0.735
74	Nicaragua	74.0	73	Philippines	8.9	74	Seychelles	13.3	73	Costa Rica	10,497	73	Venezuela (Bolivarian Republic of)	0.735

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
75	Peru	74.0	74	Singapore	8.8	75	United Arab Emirates	13.3	74	Montenegro	10,361	74	Bosnia and Herzegovina	0.733
76	Romania	74.0	75	Micronesia (Federated States of)	8.8	76	Luxembourg	13.3	75	Serbia	10,236	75	Georgia	0.733
76	Turkey	74.0	76	Bosnia and Herzegovina	8.7	77	Saint Vincent and the Grenadines	13.2	76	Iran (Islamic Republic of)	10,164	76	Ukraine	0.729
78	Saudi Arabia	73.9	77	Peru	8.7	78	Panama	13.2	77	Brazil	10,162	77	Mauritius	0.728
79	Georgia	73.7	78	Jordan	8.6	79	Indonesia	13.2	78	Palau	9,744	78	The former Yugoslav Republic of Macedonia	0.728
80	Colombia	73.7	79	Azerbaijan	8.6	80	Dominica	13.2	79	South Africa	9,469	79	Jamaica	0.727
81	Seychelles	73.6	80	Saint Vincent and the Grenadines	8.6	81	Jordan	13.1	80	The former Yugoslav Republic of Macedonia	8,804	80	Peru	0.725
82	Brazil	73.5	81	Brunei Darussalam	8.6	82	South Africa	13.1	81	Azerbaijan	8,666	81	Dominica	0.724
83	China	73.5	82	Grenada	8.6	83	Georgia	13.1	82	Peru	8,389	82	Saint Lucia	0.723
84	Jordan	73.4	83	South Africa	8.5	84	Gabon	13.1	83	Colombia	8,315	83	Ecuador	0.720
85	Dominican Republic	73.4	84	Mexico	8.5	85	Saint Lucia	13.1	84	Saint Lucia	8,273	84	Brazil	0.718
86	Mauritius	73.4	85	Bahamas	8.5	86	Fiji	13.0	85	Dominican Republic	8,087	85	Saint Vincent and the Grenadines	0.717
87	Bulgaria	73.4	86	Uruguay	8.5	87	Peru	12.9	86	Saint Vincent and the Grenadines	8,013	86	Armenia	0.716
88	Latvia	73.3	87	Saint Kitts and Nevis	8.4	88	Saint Kitts and Nevis	12.9	87	Dominica	7,889	87	Colombia	0.710
89	Egypt	73.2	88	Costa Rica	8.3	89	NU	12.8	88	Albania	7,803	88	Iran (Islamic Republic of)	0.707
90	Algeria	73.1	89	Mongolia	8.3	89	Occupied Palestinian Territory	12.7	89	Thailand	7,694	89	Oman	0.705
91	Saint Kitts and Nevis	73.1	90	Saint Lucia	8.3	90	Iran (Islamic Republic of)	12.7	90	Bosnia and Herzegovina	7,664	90	Tonga	0.704
91	Jamaica	73.1	91	Sri Lanka	8.2	91	Sri Lanka	12.7	91	Algeria	7,658	91	Azerbaijan	0.700

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
93	Honduras	73.1	92	The former Yugoslav Republic of Macedonia	8.2	92	Suriname	12.6	92	Ecuador	7,589	92	Turkey	0.699
94	Iran (Islamic Republic of)	73.0	93	Occupied Palestinian Territory	8.0	93	Malaysia	12.6	93	Suriname	7,538	93	Belize	0.699
94	Oman	73.0	94	Belize	8.0	94	Kyrgyzstan	12.5	94	China	7,476	94	Tunisia	0.698
96	Occupied Palestinian Territory	72.8	95	Guyana	8.0	95	Turkmenistan	12.5	95	Turkmenistan	7,306	95	Jordan	0.698
97	Lebanon	72.6	96	Lebanon	7.9	96	Maldives	12.4	96	Tunisia	7,281	96	Algeria	0.698
98	Antigua and Barbuda	72.6	97	Kiribati	7.8	97	Belize	12.4	97	Grenada	6,982	97	Sri Lanka	0.691
99	Paraguay	72.5	98	Saudi Arabia	7.8	98	Trinidad and Tobago	12.3	98	Jamaica	6,487	98	Dominican Republic	0.689
100	NU	72.4	99	Portugal	7.7	99	Kuwait	12.3	99	Namibia	6,206	99	Samoa	0.688
100	Samoa	72.4	100	Paraguay	7.7	100	Samoa	12.3	100	Ukraine	6,175	100	Fiji	0.688
101	Tonga	72.3	101	Dominica	7.7	101	Thailand	12.3	101	El Salvador	5,925	101	China	0.687
102	Saint Vincent and the Grenadines	72.3	102	Venezuela (Bolivarian Republic of)	7.6	102	Botswana	12.2	102	Belize	5,812	102	Turkmenistan	0.686
103	Lithuania	72.2	103	Ecuador	7.6	103	El Salvador	12.1	103	Cuba	5,416	103	Thailand	0.682
104	El Salvador	72.2	104	China	7.5	104	Micronesia (Federated States of)	12.1	104	Jordan	5,300	104	Suriname	0.680
105	Morocco	72.2	105	El Salvador	7.5	105	Kiribati	12.1	105	Bhutan	5,293	105	El Salvador	0.674
106	Palau	71.8	106	Gabon	7.5	106	Paraguay	12.1	106	Maldives	5,276	106	Gabon	0.674
107	Guatemala	71.2	107	Namibia	7.4	107	Armenia	12.0	107	Egypt	5,269	107	Paraguay	0.665
108	Vanuatu	71.0	108	Colombia	7.3	108	Bahamas	12.0	108	Armenia	5,188	108	Bolivia (Plurinational State of)	0.663
109	Azerbaijan	70.7	109	Qatar	7.3	109	Qatar	12.0	109	Sri Lanka	4,943	109	Maldives	0.661
110	Suriname	70.6	110	Libyan Arab Jamahiriya	7.3	110	Guyana	11.9	110	Angola	4,874	110	Mongolia	0.653
111	Belarus	70.3	111	Iran (Islamic Republic of)	7.3	111	Dominican Republic	11.9	111	Georgia	4,780	111	Moldova (Republic of)	0.649

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Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
112	Trinidad and Tobago	70.1	112	Zimbabwe	7.2	112	Moldova (Republic of)	11.9	112	Paraguay	4,727	112	Philippines	0.644
113	Guyana	69.9	113	Suriname	7.2	113	Philippines	11.9	113	Swaziland	4,484	113	Egypt	0.644
114	Indonesia	69.4	114	Mauritius	7.2	114	Oman	11.8	114	Syrian Arab Republic	4,243	114	Occupied Palestinian Territory	0.641
115	Moldova (Republic of)	69.3	115	Brazil	7.2	115	Turkey	11.8	115	Morocco	4,196	115	Uzbekistan	0.641
116	Fiji	69.2	116	Dominican Republic	7.2	116	Azerbaijan	11.8	116	Tonga	4,186	116	Micronesia (Federated States of)	0.636
117	Iraq	69.0	117	Swaziland	7.1	117	Costa Rica	11.7	117	Guatemala	4,167	117	Guyana	0.633
118	Micronesia (Federated States of)	69.0	118	Ghana	7.1	118	Cape Verde	11.6	118	Fiji	4,145	118	Botswana	0.633
119	Bangladesh	68.9	119	Algeria	7.0	119	Namibia	11.6	119	Bolivia (Plurinational State of)	4,054	119	Syrian Arab Republic	0.632
120	Russian Federation	68.8	120	Kenya	7.0	120	China	11.6	120	Vanuatu	3,950	120	Namibia	0.625
121	Nepal	68.8	121	Vanuatu	6.7	121	Andorra	11.5	121	Samoa	3,931	121	Honduras	0.625
122	Philippines	68.7	122	Thailand	6.6	122	Uzbekistan	11.4	122	Indonesia	3,716	122	Kiribati	0.624
123	Mongolia	68.5	123	Zambia	6.5	123	Honduras	11.4	123	Philippines	3,478	123	South Africa	0.619
124	Ukraine	68.5	124	Honduras	6.5	124	Tajikistan	11.4	124	India	3,468	124	Indonesia	0.617
125	Uzbekistan	68.3	125	Tunisia	6.5	125	Syrian Arab Republic	11.3	125	Honduras	3,443	125	Vanuatu	0.617
126	Kiribati	68.1	126	Turkey	6.5	126	Albania	11.3	126	Cape Verde	3,402	126	Kyrgyzstan	0.615
127	Solomon Islands	67.9	127	Egypt	6.4	127	Timor-Leste	11.2	127	Mongolia	3,391	127	Tajikistan	0.607
128	Kyrgyzstan	67.7	128	Kuwait	6.1	128	Rwanda	11.1	128	Guyana	3,192	128	Viet Nam	0.593
129	Tajikistan	67.5	129	Cameroon	5.9	129	Egypt	11.0	129	Iraq	3,177	129	Nicaragua	0.589
130	Lao People's Democratic Republic	67.5	130	Congo	5.9	130	Bhutan	11.0	130	Kiribati	3,140	130	Morocco	0.582
131	Bhutan	67.2	131	Lesotho	5.9	131	Liberia	11.0	131	Congo	3,066	131	Guatemala	0.574

Table 17a: International Rankings for Life Expectancy			Table 17b: International Rankings for Average Educational Attainment			Table 17c: International Ranking for Expected Years of Schooling			Table 17d: International Rankings for GNI per capita			Table 17e: International Rankings for HDI		
Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
132	Kazakhstan	67.0	132	Maldives	5.8	132	Kenya	11.0	132	Moldova (Republic of)	3,058	132	Iraq	0.573
133	Madagascar	66.7	133	Indonesia	5.8	133	Sao Tome and Principe	10.8	133	Timor-Leste	3,005	133	Cape Verde	0.568
134	Bolivia (Plurinational State of)	66.6	134	Cambodia	5.8	134	Uganda	10.8	134	Uzbekistan	2,967	134	India	0.547
135	Yemen	65.5	135	Nicaragua	5.8	135	Nicaragua	10.8	135	Micronesia (Federated States of)	2,935	135	Ghana	0.541
136	India	65.4	136	Syrian Arab Republic	5.7	136	Madagascar	10.7	136	Viet Nam	2,805	136	Equatorial Guinea	0.537
137	Pakistan	65.4	137	Iraq	5.6	137	Comoros	10.7	137	Occupied Palestinian Territory	2,656	137	Congo	0.533
138	Myanmar	65.2	138	Oman	5.5	138	Guatemala	10.6	138	Pakistan	2,550	138	Lao People's Democratic Republic	0.524
139	Turkmenistan	65.0	139	Viet Nam	5.5	139	Swaziland	10.6	139	Nicaragua	2,430	139	Cambodia	0.523
140	Sao Tome and Principe	64.7	140	Equatorial Guinea	5.4	140	Ghana	10.5	140	Djibouti	2,335	140	Swaziland	0.522
141	Ghana	64.2	141	Togo	5.3	141	Burundi	10.5	141	Papua New Guinea	2,271	141	Bhutan	0.522
142	Cambodia	63.1	142	Madagascar	5.2	142	Congo	10.5	142	Lao People's Democratic Republic	2,242	142	Solomon Islands	0.510
143	Papua New Guinea	62.8	143	Tanzania (United Republic of)	5.1	143	Viet Nam	10.4	143	Yemen	2,213	143	Kenya	0.509
144	Gabon	62.7	144	Nigeria	5.0	144	Vanuatu	10.4	144	Nigeria	2,069	144	Sao Tome and Principe	0.509
145	Timor-Leste	62.5	145	Haiti	4.9	145	India	10.3	145	Kyrgyzstan	2,036	145	Pakistan	0.504
146	Namibia	62.5	146	Pakistan	4.9	146	Cameroon	10.3	146	Cameroon	2,031	146	Bangladesh	0.500
147	Haiti	62.1	147	Bangladesh	4.8	147	Morocco	10.3	147	Tajikistan	1,937	147	Timor-Leste	0.495
148	Eritrea	61.6	148	Uganda	4.7	148	Zimbabwe	9.9	148	Sudan	1,894	148	Angola	0.486
149	Sudan	61.5	149	Lao People's Democratic Republic	4.6	149	Lesotho	9.9	149	Mauritania	1,859	149	Myanmar	0.483

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Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
150	Comoros	61.1	150	Solomon Islands	4.5	150	Cambodia	9.8	150	Cambodia	1,848	150	Cameroon	0.482
151	Senegal	59.3	151	Senegal	4.5	151	Iraq	9.8	151	Sao Tome and Principe	1,792	151	Madagascar	0.480
152	Ethiopia	59.3	152	Angola	4.4	152	Togo	9.6	152	Solomon Islands	1,782	152	Tanzania (United Republic of)	0.466
153	Mauritania	58.6	153	India	4.4	153	Myanmar	9.2	153	Senegal	1,708	153	Papua New Guinea	0.466
154	Gambia	58.5	154	Morocco	4.4	154	Benin	9.2	154	Lesotho	1,664	154	Yemen	0.462
155	Tanzania (United Republic of)	58.2	155	Papua New Guinea	4.3	155	Mozambique	9.2	155	Ghana	1,584	155	Senegal	0.459
156	Djibouti	57.9	156	Sao Tome and Principe	4.2	156	Lao People's Democratic Republic	9.2	156	Myanmar	1,535	156	Nigeria	0.459
157	Congo	57.4	157	Malawi	4.2	157	Guinea-Bissau	9.1	157	Bangladesh	1,529	157	Nepal	0.458
158	Kenya	57.1	158	Guatemala	4.1	158	Solomon Islands	9.1	158	Kenya	1,492	158	Haiti	0.454
159	Togo	57.1	159	Myanmar	4.0	159	Afghanistan	9.1	159	Afghanistan	1,416	159	Mauritania	0.453
160	Liberia	56.8	160	Liberia	3.9	160	Tanzania (United Republic of)	9.1	160	Côte d'Ivoire	1,387	160	Lesotho	0.450
161	Benin	56.1	161	Djibouti	3.8	161	Angola	9.1	161	Benin	1,364	161	Uganda	0.446
162	Rwanda	55.4	162	Mauritania	3.7	162	Gambia	9.0	162	Tanzania (United Republic of)	1,328	162	Togo	0.435
163	Burkina Faso	55.4	163	Central African Republic	3.5	163	Malawi	8.9	163	Gambia	1,282	163	Comoros	0.433
164	Côte d'Ivoire	55.4	164	Cape Verde	3.5	164	Nigeria	8.9	164	Zambia	1,254	164	Zambia	0.430
165	Niger	54.7	165	Congo (Democratic Republic of the)	3.5	165	Nepal	8.8	165	Nepal	1,160	165	Djibouti	0.430
166	Malawi	54.2	166	Eritrea	3.4	166	Yemen	8.6	166	Burkina Faso	1,141	166	Rwanda	0.429
167	Uganda	54.1	167	Rwanda	3.3	167	Guinea	8.6	167	Rwanda	1,133	167	Benin	0.427
168	Guinea	54.1	168	Afghanistan	3.3	168	Ethiopia	8.5	168	Uganda	1,124	168	Gambia	0.420
169	Botswana	53.2	169	Côte d'Ivoire	3.3	169	Mali	8.3	169	Mali	1,123	169	Sudan	0.408

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Rank	Country	Life Expectancy at Birth, years	Rank	Country	Average Educational Attainment, years	Rank	Country	Expected Years of Schooling	Rank	Country	GNI per capita (2005 PPP adjusted US dollars)	Rank	Country	Human Development Index (HDI) value
170	South Africa	52.8	170	Benin	3.3	170	Congo (Democratic Republic of the)	8.2	170	Haiti	1,123	170	Côte d'Ivoire	0.400
171	Nigeria	51.9	171	Nepal	3.2	171	Bangladesh	8.1	171	Chad	1,105	171	Malawi	0.400
172	Cameroon	51.6	172	Sudan	3.1	172	Mauritania	8.1	172	Comoros	1,079	172	Afghanistan	0.398
173	Mali	51.4	173	Sierra Leone	2.9	173	Zambia	7.9	173	Guinea-Bissau	994	173	Zimbabwe	0.376
174	Zimbabwe	51.4	174	Comoros	2.8	174	Equatorial Guinea	7.7	174	Ethiopia	971	174	Ethiopia	0.363
175	Angola	51.1	175	Gambia	2.8	175	Haiti	7.6	175	Mozambique	898	175	Mali	0.359
176	Equatorial Guinea	51.1	176	Timor-Leste	2.8	176	Senegal	7.5	176	Guinea	863	176	Guinea-Bissau	0.353
177	Burundi	50.4	177	Burundi	2.7	177	Sierra Leone	7.2	177	Madagascar	824	177	Eritrea	0.349
178	Mozambique	50.2	178	Yemen	2.5	178	Chad	7.2	178	Togo	798	178	Guinea	0.344
179	Chad	49.6	179	Bhutan	2.3	179	Pakistan	6.9	179	Malawi	753	179	Central African Republic	0.343
180	Zambia	49.0	180	Guinea-Bissau	2.3	180	Central African Republic	6.6	180	Sierra Leone	737	180	Sierra Leone	0.336
181	Swaziland	48.7	181	Mali	2.0	181	Côte d'Ivoire	6.3	181	Central African Republic	707	181	Burkina Faso	0.331
182	Afghanistan	48.7	182	Guinea	1.6	182	Burkina Faso	6.3	182	Niger	641	182	Liberia	0.329
183	Central African Republic	48.4	183	Chad	1.5	183	Papua New Guinea	5.8	183	Eritrea	536	183	Chad	0.328
184	Congo (Democratic Republic of the)	48.4	184	Ethiopia	1.5	184	Djibouti	5.1	184	Zimbabwe	376	184	Mozambique	0.322
185	Lesotho	48.2	185	Niger	1.4	185	Niger	4.9	185	Burundi	368	185	Burundi	0.316
186	Guinea-Bissau	48.1	186	Burkina Faso	1.3	186	Eritrea	4.8	186	Congo (Democratic Republic of the)	280	186	Niger	0.295
187	Sierra Leone	47.8	187	Mozambique	1.2	187	Sudan	4.4	187	Liberia	265	187	Congo (Democratic Republic of the)	0.286

Source: 2011 HDR.